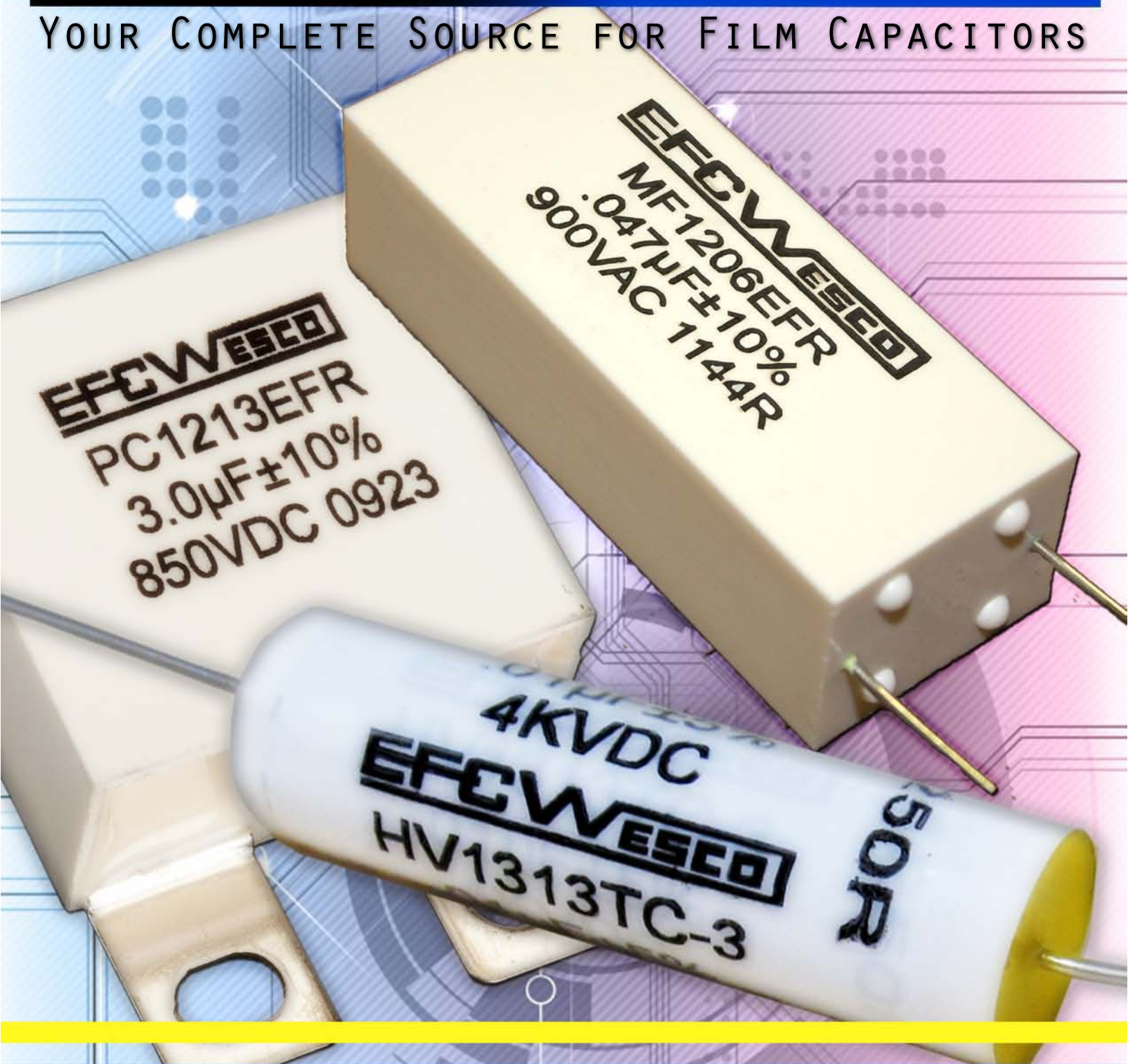


EFCWESCO

YOUR COMPLETE SOURCE FOR FILM CAPACITORS



41 Interstate Lane
Waterbury, CT 06705 USA
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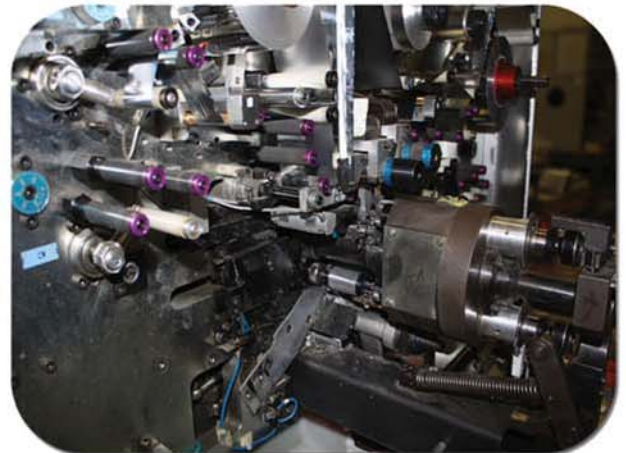
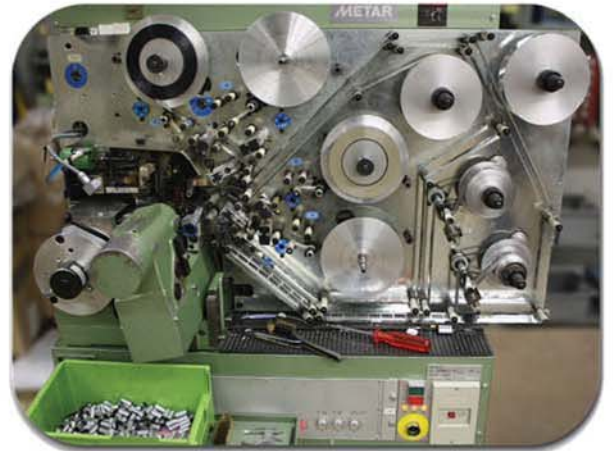
www.filmcapacitors.com

EFC/Wesco is dedicated to being the most reliable and responsive film capacitor manufacturer in the world. We are your leading source for custom and tight-tolerance Film and Power capacitors. Our experienced Management and Engineering staff, along with our modern facility, dedication to Total Quality Management, ISO 9001 certification and on-time delivery are the catalysts to achieve this goal.

We offer a complete line of ENEC and UL recognized EMI Suppression capacitors. The EMI Suppression films are “X” and “Y” class radial lead Polypropylene box style, with voltage ratings to 440 VAC and capacitance values to 10.0 μ F. Our standard film line offers Epoxy Dipped Radial Lead, IGBT Snubbers, RC Networks, Feed-Thru designs, and DC Link capacitors. Not to mention a wide variety of metallized and foil versions of Polyester, Polypropylene, Polyphenylene Sulfide as well as high-quality Polystyrene capacitors with excellent capacitance stability. We can also supply plastic encased capacitors, rectangular or round, axial or radial lead, made to your specifications. **EFC/Wesco** specializes in “tight” tolerances and custom designs.

EFC/Wesco is excited to announce distribution of its newest catalog. This catalog showcases our vast portfolio of products. Whatever your capacitor requirements, **EFC/Wesco** has a comprehensive datasheet and description to meet your application. In doing so, we know you’ll agree that for **EFC/Wesco** customer service is not a department, it is our attitude. Our personalized customer service is designed to create meaningful one-on-one relationships with our customers. All of the products featured can be customized to your specific application; simply contact the factory for any specific requests. Please visit our website for additional information at www.filmcapacitors.com.

All of us at **EFC/Wesco** look forward to servicing your capacitor needs and the opportunity of doing business with you in the near future. If we can be of any assistance, please do not hesitate to give us a call.



Catalog Nomenclature

*** 1 3 0 6 E F R - 3 - . 0 0 1 - 1 - 5**

Case Code:

- TC - Wrap & Fill - Round - Axial
- TF - Wrap & Fill - Flat - Axial
- EC - Epoxy Case - Round - Axial
- EFR - Epoxy Case - Flat - Radial
- DFR - Dipped Construction - Flat - Radial
- HS - Hermetically Sealed

Dielectric Code:

- 1206 - Polypropylene/Foil
- 1213 - Metallized Polypropylene
- 1306 - Polyester/Foil
- 1313 - Metallized Polyester
- 1613 - Metallized Polycarbonate
- 1906 - Polystyrene/Foil
- 2113 - Metallized Polyphenylene Sulfide

Size Code:

- 3 - Standard
- 2 - Miniature (1313DFR Series Only)
- X - Non-standard
- Or one letter case code

Capacitance:

In microfarads (μ F)

Voltage:

- .35 - 35 VDC
- 0 - 50 VDC
- 1 - 100 VDC
- 2 - 200 VDC
- 3 - 300 VDC
- 4 - 400 VDC
- 10 - 1000 VDC
- 1.6K - 1600VDC
- Etc.

Tolerance:

- 1 - 1%
- 2 - 2%
- 5 - 5%
- Etc.

*** Options**

The following options are available from EFC by specifying the appropriate prefix.

- A - Aluminum foil electrodes
- T - Tin foil electrodes
- HV - High voltage DC applications
- AC - AC voltage rated applications
- MF - Metallized and foil hybrid for maximum pulse current applications
- M - Dual metallized design for pulse current applications
- SP - Low ESR, high RMS current applications
- PC - Direct mount terminals for high current filter applications
- FT - Feed thru filter applications
- RC - Resistor capacitor suppressors

Series 1306 Polyester and Foil

Features: Flame retardant to UL94, cost effective, moderate temperature choice, small size, dv/dt ratings in excess of 1000 V/us.

Applications: Recommended for DC applications where blocking capacitance stability is not a critical factor, medical electronics, telecommunications.

Packaging: Axial wrap and fill (TF,TC), radial lead box (EFR, DFR), axial lead epoxy tube (EC).

Specifications

1) Temperature Range

-55°C to 85°C at rated voltage to 125°C with 50% voltage derating.

2) Capacitance

0.001µf to 10µF

3) Dielectric Strength

At 25°C, 200% of rated voltage when applied terminal to terminal for one minute through a current limiting resistance.

4) Insulation Resistance

At 25°C after 2 minutes charge time at rated voltage or 500 VDC, whichever is less, the minimum IR shall be 50,000 Megohm-Microfarads, but need not exceed 100,000 Megohms.

5) Humidity Resistance

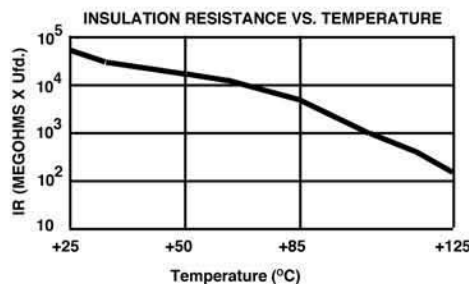
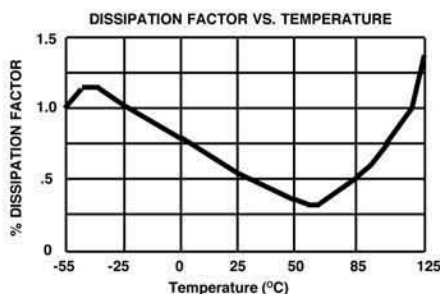
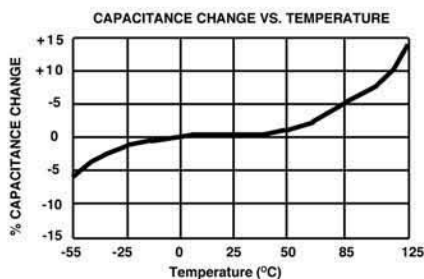
Series 1306 shall meet the requirements of MIL-STD. 202, Method 103B.

6) Dissipation Factor

Shall be 0.6% max. when measured at 1 KHz and 25°C.

7) Life Test

Will withstand the application of 140% rated voltage at + 85°C for 250 hours with not more than one failure in 12 permitted.



Typical Temperature Curves Polyester and Foil

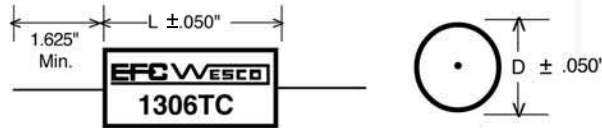


Please consult factory for special requirements, including non-standard values and sizes

1306TC Tubular Wrap & Fill

Polyester and Foil Capacitors

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG



Dimensions and Ratings

Cap.		50 VDC	
µF	Part #	D	L
.001	1306TC-3-.001-0-*	.180	.406
.0012	1306TC-3-.0012-0-*	.180	.406
.0015	1306TC-3-.0015-0-*	.180	.406
.0022	1306TC-3-.0022-0-*	.180	.406
.0027	1306TC-3-.0027-0-*	.180	.406
.0039	1306TC-3-.0039-0-*	.180	.406
.0047	1306TC-3-.0047-0-*	.180	.406
.0056	1306TC-3-.0056-0-*	.180	.406
.0068	1306TC-3-.0068-0-*	.180	.406
.0082	1306TC-3-.0082-0-*	.180	.406
.01	1306TC-3-.01-0-*	.180	.406
.012	1306TC-3-.012-0-*	.180	.406
.015	1306TC-3-.015-0-*	.180	.406
.018	1306TC-3-.018-0-*	.200	.406
.022	1306TC-3-.022-0-*	.210	.406
.027	1306TC-3-.027-0-*	.230	.406
.033	1306TC-3-.033-0-*	.180	.531
.039	1306TC-3-.039-0-*	.190	.531
.047	1306TC-3-.047-0-*	.200	.531
.056	1306TC-3-.056-0-*	.220	.531
.068	1306TC-3-.068-0-*	.200	.656
.082	1306TC-3-.082-0-*	.210	.656
.1	1306TC-3-.1-0-*	.230	.656
.12	1306TC-3-.12-0-*	.250	.656
.15	1306TC-3-.15-0-*	.280	.656
.18	1306TC-3-.18-0-*	.270	.781
.22	1306TC-3-.22-0-*	.300	.781
.27	1306TC-3-.27-0-*	.330	.781
.33	1306TC-3-.33-0-*	.320	.906
.39	1306TC-3-.39-0-*	.350	.906
.47	1306TC-3-.47-0-*	.380	.906
.56	1306TC-3-.56-0-*	.360	1.190
.68	1306TC-3-.68-0-*	.390	1.190
.82	1306TC-3-.82-0-*	.420	1.190
1.0	1306TC-3-1.0-0-*	.460	1.190
1.25	1306TC-3-1.25-0-*	.520	1.190

Cap.		100 VDC	
µF	Part #	D	L
.001	1306TC-3-.001-1-*	.180	.406
.0012	1306TC-3-.0012-1-*	.180	.406
.0015	1306TC-3-.0015-1-*	.180	.406
.0022	1306TC-3-.0022-1-*	.180	.406
.0027	1306TC-3-.0027-1-*	.180	.406
.0039	1306TC-3-.0039-1-*	.180	.406
.0047	1306TC-3-.0047-1-*	.180	.406
.0056	1306TC-3-.0056-1-*	.180	.406
.0068	1306TC-3-.0068-1-*	.180	.406
.0082	1306TC-3-.0082-1-*	.180	.406
.01	1306TC-3-.01-1-*	.180	.406
.012	1306TC-3-.012-1-*	.200	.406
.015	1306TC-3-.015-1-*	.220	.406
.018	1306TC-3-.018-1-*	.240	.406
.022	1306TC-3-.022-1-*	.180	.531
.027	1306TC-3-.027-1-*	.200	.531
.033	1306TC-3-.033-1-*	.210	.531
.039	1306TC-3-.039-1-*	.230	.531
.047	1306TC-3-.047-1-*	.250	.531
.056	1306TC-3-.056-1-*	.270	.531
.068	1306TC-3-.068-1-*	.240	.656
.082	1306TC-3-.082-1-*	.270	.656
.1	1306TC-3-.1-1-*	.290	.656
.12	1306TC-3-.12-1-*	.320	.656
.15	1306TC-3-.15-1-*	.350	.656
.18	1306TC-3-.18-1-*	.390	.656
.22	1306TC-3-.22-1-*	.330	.906
.27	1306TC-3-.27-1-*	.370	.906
.33	1306TC-3-.33-1-*	.400	.906
.39	1306TC-3-.39-1-*	.440	.906
.47	1306TC-3-.47-1-*	.480	.906
.56	1306TC-3-.56-1-*	.440	1.190
.68	1306TC-3-.68-1-*	.490	1.190
.82	1306TC-3-.82-1-*	.530	1.190
1.0	1306TC-3-1.0-1-*	.580	1.190
1.25	1306TC-3-1.25-1-*	.650	1.190
1.5	1306TC-3-1.5-1-*	.630	1.440
2.0	1306TC-3-2.0-1-*	.720	1.440
3.0	1306TC-3-3.0-1-*	.800	1.690
4.0	1306TC-3-4.0-1-*	.920	1.690
5.0	1306TC-3-5.0-1-*	1.020	1.940

Cap.		160 VDC	
µF	Part #	D	L
.001	1306TC-3-.001-1.6-*	.180	.406
.0012	1306TC-3-.0012-1.6-*	.180	.406
.0015	1306TC-3-.0015-1.6-*	.180	.406
.0022	1306TC-3-.0022-1.6-*	.180	.406
.0027	1306TC-3-.0027-1.6-*	.180	.406
.0039	1306TC-3-.0039-1.6-*	.180	.406
.0047	1306TC-3-.0047-1.6-*	.180	.406
.0056	1306TC-3-.0056-1.6-*	.180	.406
.0068	1306TC-3-.0068-1.6-*	.180	.406
.0082	1306TC-3-.0082-1.6-*	.190	.406
.01	1306TC-3-.01-1.6-*	.210	.406
.012	1306TC-3-.012-1.6-*	.220	.406
.015	1306TC-3-.015-1.6-*	.170	.531
.018	1306TC-3-.018-1.6-*	.180	.531
.022	1306TC-3-.022-1.6-*	.200	.531
.027	1306TC-3-.027-1.6-*	.220	.531
.033	1306TC-3-.033-1.6-*	.240	.531
.039	1306TC-3-.039-1.6-*	.260	.531
.047	1306TC-3-.047-1.6-*	.290	.531
.056	1306TC-3-.056-1.6-*	.250	.656
.068	1306TC-3-.068-1.6-*	.280	.656
.082	1306TC-3-.082-1.6-*	.300	.656
.1	1306TC-3-.1-1.6-*	.330	.656
.12	1306TC-3-.12-1.6-*	.360	.656
.15	1306TC-3-.15-1.6-*	.350	.781
.18	1306TC-3-.18-1.6-*	.380	.781
.22	1306TC-3-.22-1.6-*	.420	.781
.27	1306TC-3-.27-1.6-*	.410	.906
.33	1306TC-3-.33-1.6-*	.460	.906
.39	1306TC-3-.39-1.6-*	.500	.906
.47	1306TC-3-.47-1.6-*	.460	1.190
.56	1306TC-3-.56-1.6-*	.500	1.190
.68	1306TC-3-.68-1.6-*	.550	1.190
.82	1306TC-3-.82-1.6-*	.600	1.190
1.0	1306TC-3-1.0-1.6-*	.660	1.190
1.25	1306TC-3-1.25-1.6-*	.650	1.440
1.5	1306TC-3-1.5-1.6-*	.710	1.440
2.0	1306TC-3-2.0-1.6-*	.750	1.690
3.0	1306TC-3-3.0-1.6-*	.910	1.690
4.0	1306TC-3-4.0-1.6-*	1.050	1.690
5.0	1306TC-3-5.0-1.6-*	1.070	1.940
6.0	1306TC-3-6.0-1.6-*	1.170	1.940
8.0	1306TC-3-8.0-1.6-*	1.260	2.250

* - Please insert appropriate tolerance code

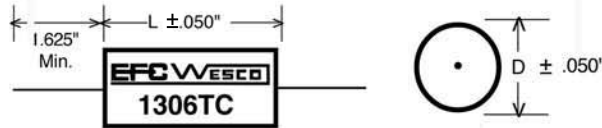


Please consult factory for special requirements, including non-standard values and sizes

1306TC Tubular Wrap & Fill

Polyester and Foil Capacitors

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG



Dimensions and Ratings

Cap.	200 VDC		
µF	Part #	D	L
.001	1306TC-3-.001-2-*	.180	.406
.0012	1306TC-3-.0012-2-*	.180	.406
.0015	1306TC-3-.0015-2-*	.180	.406
.0022	1306TC-3-.0022-2-*	.180	.406
.0027	1306TC-3-.0027-2-*	.180	.406
.0039	1306TC-3-.0039-2-*	.180	.406
.0047	1306TC-3-.0047-2-*	.180	.406
.0056	1306TC-3-.0056-2-*	.190	.406
.0068	1306TC-3-.0068-2-*	.210	.406
.0082	1306TC-3-.0082-2-*	.230	.406
.01	1306TC-3-.01-2-*	.250	.406
.012	1306TC-3-.012-2-*	.180	.531
.015	1306TC-3-.015-2-*	.200	.531
.018	1306TC-3-.018-2-*	.220	.531
.022	1306TC-3-.022-2-*	.240	.531
.027	1306TC-3-.027-2-*	.260	.531
.033	1306TC-3-.033-2-*	.290	.531
.039	1306TC-3-.039-2-*	.250	.656
.047	1306TC-3-.047-2-*	.280	.656
.056	1306TC-3-.056-2-*	.300	.656
.068	1306TC-3-.068-2-*	.330	.656
.082	1306TC-3-.082-2-*	.360	.656
.1	1306TC-3-.1-2-*	.350	.781
.12	1306TC-3-.12-2-*	.380	.781
.15	1306TC-3-.15-2-*	.420	.781
.18	1306TC-3-.18-2-*	.410	.906
.22	1306TC-3-.22-2-*	.450	.906
.27	1306TC-3-.27-2-*	.500	.906
.33	1306TC-3-.33-2-*	.470	1.190
.39	1306TC-3-.39-2-*	.510	1.190
.47	1306TC-3-.47-2-*	.560	1.190
.56	1306TC-3-.56-2-*	.600	1.190
.68	1306TC-3-.68-2-*	.660	1.190
.82	1306TC-3-.82-2-*	.640	1.440
1.0	1306TC-3-1.0-2-*	.710	1.690
1.25	1306TC-3-1.25-2-*	.780	1.690
1.5	1306TC-3-1.5-2-*	.830	1.940
2.0	1306TC-3-2.0-2-*	1.010	1.940

Cap.	400 VDC		
µF	Part #	D	L
.001	1306TC-3-.001-4-*	.180	.406
.0012	1306TC-3-.0012-4-*	.180	.406
.0015	1306TC-3-.0015-4-*	.180	.406
.0022	1306TC-3-.0022-4-*	.200	.406
.0027	1306TC-3-.0027-4-*	.220	.406
.0039	1306TC-3-.0039-4-*	.260	.406
.0047	1306TC-3-.0047-4-*	.180	.531
.0056	1306TC-3-.0056-4-*	.190	.531
.0068	1306TC-3-.0068-4-*	.200	.531
.0082	1306TC-3-.0082-4-*	.220	.531
.01	1306TC-3-.01-4-*	.240	.531
.012	1306TC-3-.012-4-*	.270	.531
.015	1306TC-3-.015-4-*	.290	.531
.018	1306TC-3-.018-4-*	.250	.656
.022	1306TC-3-.022-4-*	.280	.656
.027	1306TC-3-.027-4-*	.310	.656
.033	1306TC-3-.033-4-*	.340	.656
.039	1306TC-3-.039-4-*	.360	.656
.047	1306TC-3-.047-4-*	.340	.781
.056	1306TC-3-.056-4-*	.370	.781
.068	1306TC-3-.068-4-*	.410	.781
.082	1306TC-3-.082-4-*	.400	.906
.1	1306TC-3-.1-4-*	.440	.906
.12	1306TC-3-.12-4-*	.480	.906
.15	1306TC-3-.15-4-*	.450	1.190
.18	1306TC-3-.18-4-*	.490	1.190
.22	1306TC-3-.22-4-*	.540	1.190
.27	1306TC-3-.27-4-*	.600	1.190
.33	1306TC-3-.33-4-*	.580	1.440
.39	1306TC-3-.39-4-*	.630	1.440
.47	1306TC-3-.47-4-*	.690	1.440
.56	1306TC-3-.56-4-*	.680	1.690
.68	1306TC-3-.68-4-*	.740	1.690
.82	1306TC-3-.82-4-*	.810	1.690
1.0	1306TC-3-1.0-4-*	.820	1.940
1.25	1306TC-3-1.25-4-*	.920	1.940
1.5	1306TC-3-1.5-4-*	1.000	1.940
2.0	1306TC-3-2.0-4-*	1.080	2.250
3.0	1306TC-3-3.0-4-*	1.310	2.250

Cap.	600 VDC		
µF	Part #	D	L
.001	1306TC-3-.001-6-*	.180	.531
.0012	1306TC-3-.0012-6-*	.180	.531
.0015	1306TC-3-.0015-6-*	.180	.531
.0022	1306TC-3-.0022-6-*	.190	.531
.0027	1306TC-3-.0027-6-*	.200	.531
.0039	1306TC-3-.0039-6-*	.240	.531
.0047	1306TC-3-.0047-6-*	.260	.531
.0056	1306TC-3-.0056-6-*	.280	.531
.0068	1306TC-3-.0068-6-*	.230	.656
.0082	1306TC-3-.0082-6-*	.250	.656
.01	1306TC-3-.01-6-*	.270	.656
.012	1306TC-3-.012-6-*	.290	.656
.015	1306TC-3-.015-6-*	.330	.656
.018	1306TC-3-.018-6-*	.360	.656
.022	1306TC-3-.022-6-*	.330	.781
.027	1306TC-3-.027-6-*	.360	.781
.033	1306TC-3-.033-6-*	.400	.781
.039	1306TC-3-.039-6-*	.370	.906
.047	1306TC-3-.047-6-*	.410	.906
.056	1306TC-3-.056-6-*	.450	.906
.068	1306TC-3-.068-6-*	.490	.906
.082	1306TC-3-.082-6-*	.450	1.190
.1	1306TC-3-.1-6-*	.490	1.190
.12	1306TC-3-.12-6-*	.530	1.190
.15	1306TC-3-.15-6-*	.590	1.190
.18	1306TC-3-.18-6-*	.650	1.190
.22	1306TC-3-.22-6-*	.620	1.440
.27	1306TC-3-.27-6-*	.690	1.440
.33	1306TC-3-.33-6-*	.680	1.690
.39	1306TC-3-.39-6-*	.740	1.690
.47	1306TC-3-.47-6-*	.810	1.690
.56	1306TC-3-.56-6-*	.810	1.940
.68	1306TC-3-.68-6-*	.890	1.940
.82	1306TC-3-.82-6-*	.970	1.940
1.0	1306TC-3-1.0-6-*	1.070	1.940
1.25	1306TC-3-1.25-6-*	1.110	2.250
1.5	1306TC-3-1.5-6-*	1.220	2.250

* - Please insert appropriate tolerance code

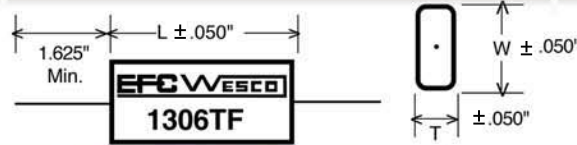


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1306TF Oval Wrap & Fill

Polyester and Foil Capacitors

Lead Spec.
Tinned Copperweld
Under .190T = 24 AWG
.190 - .380T = 22AWG
Above .380T = 20 AWG



Dimensions and Ratings

Cap.		50 VDC			
µF	Part #	T	W	L	
.001	1306TF-3-.001-0-*	.120	.210	.406	
.0012	1306TF-3-.0012-0-*	.120	.210	.406	
.0015	1306TF-3-.0015-0-*	.120	.210	.406	
.0022	1306TF-3-.0022-0-*	.120	.210	.406	
.0027	1306TF-3-.0027-0-*	.120	.210	.406	
.0039	1306TF-3-.0039-0-*	.120	.210	.406	
.0047	1306TF-3-.0047-0-*	.120	.210	.406	
.0056	1306TF-3-.0056-0-*	.120	.210	.406	
.0068	1306TF-3-.0068-0-*	.120	.210	.406	
.0082	1306TF-3-.0082-0-*	.120	.210	.406	
.01	1306TF-3-.01-0-*	.120	.210	.406	
.012	1306TF-3-.012-0-*	.120	.210	.406	
.015	1306TF-3-.015-0-*	.120	.220	.406	
.018	1306TF-3-.018-0-*	.140	.230	.406	
.022	1306TF-3-.022-0-*	.150	.240	.406	
.027	1306TF-3-.027-0-*	.170	.270	.406	
.033	1306TF-3-.033-0-*	.120	.210	.531	
.039	1306TF-3-.039-0-*	.130	.220	.531	
.047	1306TF-3-.047-0-*	.140	.240	.531	
.056	1306TF-3-.056-0-*	.160	.250	.531	
.068	1306TF-3-.068-0-*	.180	.270	.531	
.082	1306TF-3-.082-0-*	.200	.300	.531	
.1	1306TF-3-.1-0-*	.230	.320	.531	
.12	1306TF-3-.12-0-*	.190	.290	.656	
.15	1306TF-3-.15-0-*	.220	.310	.656	
.18	1306TF-3-.18-0-*	.250	.340	.656	
.22	1306TF-3-.22-0-*	.280	.370	.656	
.27	1306TF-3-.27-0-*	.310	.410	.656	
.33	1306TF-3-.33-0-*	.280	.400	.781	
.39	1306TF-3-.39-0-*	.310	.430	.781	
.47	1306TF-3-.47-0-*	.340	.470	1.190	
.56	1306TF-3-.56-0-*	.330	.460	1.190	
.68	1306TF-3-.68-0-*	.370	.500	1.190	
.82	1306TF-3-.82-0-*	.410	.540	1.190	
1.0	1306TF-3-1.0-0-*	.360	.520	1.190	
1.25	1306TF-3-1.25-0-*	.410	.580	1.190	
1.5	1306TF-3-1.5-0-*	.460	.620	1.190	
2.0	1306TF-3-2.0-0-*	.540	.710	1.190	

Cap.		100 VDC			
µF	Part #	T	W	L	
.001	1306TF-3-.001-1-*	.120	.210	.406	
.0012	1306TF-3-.0012-1-*	.120	.210	.406	
.0015	1306TF-3-.0015-1-*	.120	.210	.406	
.0022	1306TF-3-.0022-1-*	.120	.210	.406	
.0027	1306TF-3-.0027-1-*	.120	.210	.406	
.0039	1306TF-3-.0039-1-*	.120	.210	.406	
.0047	1306TF-3-.0047-1-*	.120	.210	.406	
.0056	1306TF-3-.0056-1-*	.120	.210	.406	
.0068	1306TF-3-.0068-1-*	.120	.210	.406	
.0082	1306TF-3-.0082-1-*	.120	.210	.406	
.01	1306TF-3-.01-1-*	.120	.220	.406	
.012	1306TF-3-.012-1-*	.140	.230	.406	
.015	1306TF-3-.015-1-*	.160	.250	.406	
.018	1306TF-3-.018-1-*	.180	.270	.406	
.022	1306TF-3-.022-1-*	.120	.210	.531	
.027	1306TF-3-.027-1-*	.140	.230	.531	
.033	1306TF-3-.033-1-*	.150	.250	.531	
.039	1306TF-3-.039-1-*	.170	.270	.531	
.047	1306TF-3-.047-1-*	.190	.290	.531	
.056	1306TF-3-.056-1-*	.210	.310	.531	
.068	1306TF-3-.068-1-*	.180	.280	.656	
.082	1306TF-3-.082-1-*	.210	.300	.656	
.1	1306TF-3-.1-1-*	.230	.330	.656	
.12	1306TF-3-.12-1-*	.260	.350	.656	
.15	1306TF-3-.15-1-*	.290	.390	.656	
.18	1306TF-3-.18-1-*	.330	.420	.656	
.22	1306TF-3-.22-1-*	.290	.420	.781	
.27	1306TF-3-.27-1-*	.330	.450	.781	
.33	1306TF-3-.33-1-*	.320	.450	.906	
.39	1306TF-3-.39-1-*	.360	.480	.906	
.47	1306TF-3-.47-1-*	.400	.520	.906	
.56	1306TF-3-.56-1-*	.340	.500	1.190	
.68	1306TF-3-.68-1-*	.380	.550	1.190	
.82	1306TF-3-.82-1-*	.430	.590	1.190	
1.0	1306TF-3-1.0-1-*	.480	.640	1.190	
1.25	1306TF-3-1.25-1-*	.540	.710	1.190	
1.5	1306TF-3-1.5-1-*	.520	.690	1.440	
2.0	1306TF-3-2.0-1-*	.610	.780	1.440	
3.0	1306TF-3-3.0-1-*	.670	.870	1.690	
4.0	1306TF-3-4.0-1-*	.790	.990	1.690	
5.0	1306TF-3-5.0-1-*	.900	1.090	1.690	

Cap.		160 VDC			
µF	Part #	T	W	L	
.001	1306TF-3-.001-1.6-*	.120	.210	.406	
.0012	1306TF-3-.0012-1.6-*	.120	.210	.406	
.0015	1306TF-3-.0015-1.6-*	.120	.210	.406	
.0022	1306TF-3-.0022-1.6-*	.120	.210	.406	
.0027	1306TF-3-.0027-1.6-*	.120	.210	.406	
.0039	1306TF-3-.0039-1.6-*	.120	.210	.406	
.0047	1306TF-3-.0047-1.6-*	.120	.210	.406	
.0056	1306TF-3-.0056-1.6-*	.120	.210	.406	
.0068	1306TF-3-.0068-1.6-*	.120	.210	.406	
.0082	1306TF-3-.0082-1.6-*	.130	.220	.406	
.01	1306TF-3-.01-1.6-*	.150	.240	.406	
.012	1306TF-3-.012-1.6-*	.160	.260	.406	
.015	1306TF-3-.015-1.6-*	.110	.200	.531	
.018	1306TF-3-.018-1.6-*	.120	.220	.531	
.022	1306TF-3-.022-1.6-*	.140	.240	.531	
.027	1306TF-3-.027-1.6-*	.160	.260	.531	
.033	1306TF-3-.033-1.6-*	.180	.280	.531	
.039	1306TF-3-.039-1.6-*	.200	.300	.531	
.047	1306TF-3-.047-1.6-*	.230	.320	.531	
.056	1306TF-3-.056-1.6-*	.190	.290	.656	
.068	1306TF-3-.068-1.6-*	.220	.310	.656	
.082	1306TF-3-.082-1.6-*	.240	.340	.656	
.1	1306TF-3-.1-1.6-*	.270	.360	.656	
.12	1306TF-3-.12-1.6-*	.300	.400	.656	
.15	1306TF-3-.15-1.6-*	.270	.400	.781	
.18	1306TF-3-.18-1.6-*	.300	.430	.781	
.22	1306TF-3-.22-1.6-*	.340	.470	.781	
.27	1306TF-3-.27-1.6-*	.330	.460	.906	
.33	1306TF-3-.33-1.6-*	.380	.500	.906	
.39	1306TF-3-.39-1.6-*	.420	.540	.906	
.47	1306TF-3-.47-1.6-*	.360	.520	1.190	
.56	1306TF-3-.56-1.6-*	.400	.560	1.190	
.68	1306TF-3-.68-1.6-*	.450	.610	1.190	
.82	1306TF-3-.82-1.6-*	.500	.660	1.190	
1.0	1306TF-3-1.0-1.6-*	.560	.730	1.190	
1.25	1306TF-3-1.25-1.6-*	.550	.710	1.440	
1.5	1306TF-3-1.5-1.6-*	.610	.770	1.440	
2.0	1306TF-3-2.0-1.6-*	.620	.820	1.690	
3.0	1306TF-3-3.0-1.6-*	.780	.980	1.690	
4.0	1306TF-3-4.0-1.6-*	.920	1.120	1.690	
5.0	1306TF-3-5.0-1.6-*	.950	1.140	1.940	
6.0	1306TF-3-6.0-1.6-*	1.050	1.250	1.940	
8.0	1306TF-3-8.0-1.6-*	1.130	1.330	2.250	

* - Please insert appropriate tolerance code

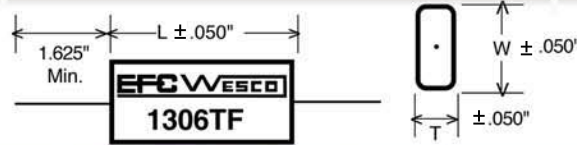


Please consult factory for special requirements, including non-standard values and sizes

1306TF Oval Wrap & Fill

Polyester and Foil Capacitors

Lead Spec.
Tinned Copperweld
Under .190T = 24 AWG
.190 - .380T = 22AWG
Above .380T = 20 AWG



Dimensions and Ratings

200 VDC					400 VDC					600 VDC				
Cap.	Part #	T	W	L	Cap.	Part #	T	W	L	Cap.	Part #	T	W	L
.001	1306TF-3-001-2-*	.120	.210	.406	.001	1306TF-3-001-4-*	.120	.210	.406	.001	1306TF-3-001-6-*	.120	.210	.531
.0012	1306TF-3-0012-2-*	.120	.210	.406	.0012	1306TF-3-0012-4-*	.120	.210	.406	.0012	1306TF-3-0012-6-*	.120	.210	.531
.0015	1306TF-3-0015-2-*	.120	.210	.406	.0015	1306TF-3-0015-4-*	.120	.210	.406	.0015	1306TF-3-0015-6-*	.120	.210	.531
.0022	1306TF-3-0022-2-*	.120	.210	.406	.0022	1306TF-3-0022-4-*	.140	.240	.406	.0022	1306TF-3-0022-6-*	.130	.220	.531
.0027	1306TF-3-0027-2-*	.120	.210	.406	.0027	1306TF-3-0027-4-*	.160	.260	.406	.0027	1306TF-3-0027-6-*	.140	.240	.531
.0039	1306TF-3-0039-2-*	.120	.210	.406	.0039	1306TF-3-0039-4-*	.200	.300	.406	.0039	1306TF-3-0039-6-*	.180	.270	.531
.0047	1306TF-3-0047-2-*	.120	.210	.406	.0047	1306TF-3-0047-4-*	.120	.210	.531	.0047	1306TF-3-0047-6-*	.200	.300	.531
.0056	1306TF-3-0056-2-*	.130	.230	.406	.0056	1306TF-3-0056-4-*	.130	.220	.531	.0056	1306TF-3-0056-6-*	.220	.320	.531
.0068	1306TF-3-0068-2-*	.150	.250	.406	.0068	1306TF-3-0068-4-*	.140	.240	.531	.0068	1306TF-3-0068-6-*	.170	.260	.656
.0082	1306TF-3-0082-2-*	.170	.260	.406	.0082	1306TF-3-0082-4-*	.150	.260	.531	.0082	1306TF-3-0082-6-*	.190	.280	.656
.01	1306TF-3-01-2-*	.190	.280	.406	.01	1306TF-3-01-4-*	.180	.280	.531	.01	1306TF-3-01-6-*	.210	.300	.656
.012	1306TF-3-012-2-*	.120	.220	.531	.012	1306TF-3-012-4-*	.210	.300	.531	.012	1306TF-3-012-6-*	.230	.330	.656
.015	1306TF-3-015-2-*	.140	.240	.531	.015	1306TF-3-015-4-*	.230	.330	.531	.015	1306TF-3-015-6-*	.270	.360	.656
.018	1306TF-3-018-2-*	.160	.250	.531	.018	1306TF-3-018-4-*	.190	.290	.656	.018	1306TF-3-018-6-*	.300	.390	.656
.022	1306TF-3-022-2-*	.180	.270	.531	.022	1306TF-3-022-4-*	.220	.310	.656	.022	1306TF-3-022-6-*	.250	.370	.781
.027	1306TF-3-027-2-*	.200	.300	.531	.027	1306TF-3-027-4-*	.250	.340	.656	.027	1306TF-3-027-6-*	.280	.410	.781
.033	1306TF-3-033-2-*	.230	.320	.531	.033	1306TF-3-033-4-*	.280	.370	.656	.033	1306TF-3-033-6-*	.320	.440	.781
.039	1306TF-3-039-2-*	.190	.290	.656	.039	1306TF-3-039-4-*	.300	.400	.656	.039	1306TF-3-039-6-*	.290	.420	.906
.047	1306TF-3-047-2-*	.220	.310	.656	.047	1306TF-3-047-4-*	.260	.390	.781	.047	1306TF-3-047-6-*	.330	.460	.906
.056	1306TF-3-056-2-*	.240	.340	.656	.056	1306TF-3-056-4-*	.290	.420	.781	.056	1306TF-3-056-6-*	.370	.490	.906
.068	1306TF-3-068-2-*	.270	.360	.656	.068	1306TF-3-068-4-*	.330	.460	.781	.068	1306TF-3-068-6-*	.410	.530	.906
.082	1306TF-3-082-2-*	.300	.400	.656	.082	1306TF-3-082-4-*	.320	.440	.906	.082	1306TF-3-082-6-*	.340	.510	1.190
.1	1306TF-3-1-2-*	.270	.390	.781	.1	1306TF-3-1-4-*	.360	.480	.906	.1	1306TF-3-1-6-*	.380	.550	1.190
.12	1306TF-3-12-2-*	.300	.420	.781	.12	1306TF-3-12-4-*	.400	.520	.906	.12	1306TF-3-12-6-*	.430	.600	1.190
.15	1306TF-3-15-2-*	.340	.470	.781	.15	1306TF-3-15-4-*	.350	.510	1.190	.15	1306TF-3-15-6-*	.490	.660	1.190
.18	1306TF-3-18-2-*	.330	.460	.906	.18	1306TF-3-18-4-*	.390	.550	1.190	.18	1306TF-3-18-6-*	.540	.710	1.190
.22	1306TF-3-22-2-*	.370	.500	.906	.22	1306TF-3-22-4-*	.440	.600	1.190	.22	1306TF-3-22-6-*	.520	.680	1.440
.27	1306TF-3-27-2-*	.420	.540	.906	.27	1306TF-3-27-4-*	.490	.660	1.190	.27	1306TF-3-27-6-*	.580	.750	1.440
.33	1306TF-3-33-2-*	.360	.530	1.190	.33	1306TF-3-33-4-*	.470	.640	1.440	.33	1306TF-3-33-6-*	.560	.760	1.690
.39	1306TF-3-39-2-*	.400	.570	1.190	.39	1306TF-3-39-4-*	.520	.690	1.440	.39	1306TF-3-39-6-*	.620	.810	1.690
.47	1306TF-3-47-2-*	.450	.620	1.190	.47	1306TF-3-47-4-*	.580	.750	1.440	.47	1306TF-3-47-6-*	.690	.880	1.690
.56	1306TF-3-56-2-*	.500	.670	1.190	.56	1306TF-3-56-4-*	.550	.750	1.690	.56	1306TF-3-56-6-*	.680	.880	1.940
.68	1306TF-3-68-2-*	.560	.720	1.190	.68	1306TF-3-68-4-*	.620	.820	1.690	.68	1306TF-3-68-6-*	.760	.960	1.940
.82	1306TF-3-82-2-*	.540	.700	1.440	.82	1306TF-3-82-4-*	.690	.890	1.690	.82	1306TF-3-82-6-*	.850	1.050	1.940
1.0	1306TF-3-1.0-2-*	.590	.780	1.440	1.0	1306TF-3-1.0-4-*	.700	.900	1.940	1.0	1306TF-3-1.0-6-*	.950	1.150	1.940
1.25	1306TF-3-1.25-2-*	.590	.790	1.690	1.25	1306TF-3-1.25-4-*	.790	.990	1.940	1.25	1306TF-3-1.25-6-*	.990	1.180	2.250
1.5	1306TF-3-1.5-2-*	.660	.850	1.690	1.5	1306TF-3-1.5-4-*	.880	1.080	1.940	1.5	1306TF-3-1.5-6-*	1.090	1.290	2.250
2.0	1306TF-3-2.0-2-*	.700	.900	1.940	2.0	1306TF-3-2.0-4-*	.950	1.150	2.250					
3.0	1306TF-3-3.0-2-*	.880	1.080	1.940	3.0	1306TF-3-3.0-4-*	1.190	1.390	2.250					

* - Please insert appropriate tolerance code

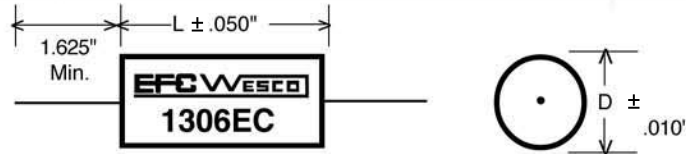


Please consult factory for special requirements, including non-standard values and sizes

1306EC
Tubular Plastic Case
(Axial Leads)

Polyester and Foil Capacitors

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG



Dimensions and Ratings

Cap.	50 VDC			Cap.	100 VDC			Cap.	160 VDC		
μF	Part #	D	L	μF	Part #	D	L	μF	Part #	D	L
.001	1306EC-3-.001-0-*	.187	.375	.001	1306EC-3-.001-1-*	.187	.375	.001	1306EC-3-.001-10-1.6-*	.187	.375
.0012	1306EC-3-.0012-0-*	.187	.375	.0012	1306EC-3-.0012-1-*	.187	.375	.0012	1306EC-3-.0012-10-1.6-*	.187	.375
.0015	1306EC-3-.0015-0-*	.187	.375	.0015	1306EC-3-.0015-1-*	.187	.375	.0015	1306EC-3-.0015-10-1.6-*	.187	.375
.0022	1306EC-3-.0022-0-*	.187	.375	.0022	1306EC-3-.0022-1-*	.187	.375	.0022	1306EC-3-.0022-10-1.6-*	.187	.375
.0027	1306EC-3-.0027-0-*	.187	.375	.0027	1306EC-3-.0027-1-*	.187	.375	.0027	1306EC-3-.0027-10-1.6-*	.187	.375
.0039	1306EC-3-.0039-0-*	.187	.375	.0039	1306EC-3-.0039-1-*	.187	.375	.0039	1306EC-3-.0039-10-1.6-*	.187	.375
.0047	1306EC-3-.0047-0-*	.187	.375	.0047	1306EC-3-.0047-1-*	.187	.375	.0047	1306EC-3-.0047-10-1.6-*	.225	.375
.0056	1306EC-3-.0056-0-*	.225	.375	.0056	1306EC-3-.0056-1-*	.187	.375	.0056	1306EC-3-.0056-10-1.6-*	.225	.375
.0068	1306EC-3-.0068-0-*	.225	.375	.0068	1306EC-3-.0068-1-*	.225	.375	.0068	1306EC-3-.0068-10-1.6-*	.225	.375
.0082	1306EC-3-.0082-0-*	.225	.375	.0082	1306EC-3-.0082-1-*	.225	.375	.0082	1306EC-3-.0082-10-1.6-*	.225	.375
.01	1306EC-3-.01-0-*	.187	.500	.01	1306EC-3-.01-1-*	.225	.375	.01	1306EC-3-.01-10-1.6-*	.187	.500
.012	1306EC-3-.012-0-*	.187	.500	.012	1306EC-3-.012-1-*	.187	.500	.012	1306EC-3-.012-10-1.6-*	.225	.500
.015	1306EC-3-.015-0-*	.225	.500	.015	1306EC-3-.015-1-*	.225	.500	.015	1306EC-3-.015-10-1.6-*	.225	.500
.018	1306EC-3-.018-0-*	.225	.500	.018	1306EC-3-.018-1-*	.225	.500	.018	1306EC-3-.018-10-1.6-*	.225	.500
.022	1306EC-3-.022-0-*	.225	.500	.022	1306EC-3-.022-1-*	.225	.500	.022	1306EC-3-.022-10-1.6-*	.260	.550
.027	1306EC-3-.027-0-*	.260	.550	.027	1306EC-3-.027-1-*	.260	.550	.027	1306EC-3-.027-10-1.6-*	.260	.550
.033	1306EC-3-.033-0-*	.260	.550	.033	1306EC-3-.033-1-*	.260	.550	.033	1306EC-3-.033-10-1.6-*	.250	.625
.039	1306EC-3-.039-0-*	.250	.625	.039	1306EC-3-.039-1-*	.250	.625	.039	1306EC-3-.039-10-1.6-*	.250	.625
.047	1306EC-3-.047-0-*	.250	.625	.047	1306EC-3-.047-1-*	.250	.625	.047	1306EC-3-.047-10-1.6-*	.312	.625
.056	1306EC-3-.056-0-*	.250	.625	.056	1306EC-3-.056-1-*	.250	.625	.056	1306EC-3-.056-10-1.6-*	.312	.625
.068	1306EC-3-.068-0-*	.312	.625	.068	1306EC-3-.068-1-*	.312	.625	.068	1306EC-3-.068-10-1.6-*	.312	.625
.082	1306EC-3-.082-0-*	.312	.625	.082	1306EC-3-.082-1-*	.312	.625	.082	1306EC-3-.082-10-1.6-*	.312	.750
.1	1306EC-3-.1-0-*	.312	.625	.1	1306EC-3-.1-1-*	.312	.750	.1	1306EC-3-.1-10-1.6-*	.375	.750
.12	1306EC-3-.12-0-*	.312	.750	.12	1306EC-3-.12-1-*	.312	.750	.12	1306EC-3-.12-10-1.6-*	.375	.750
.15	1306EC-3-.15-0-*	.375	.750	.15	1306EC-3-.15-1-*	.375	.750	.15	1306EC-3-.15-10-1.6-*	.375	.875
.18	1306EC-3-.18-0-*	.375	.750	.18	1306EC-3-.18-1-*	.375	.750	.18	1306EC-3-.18-10-1.6-*	.375	.875
.22	1306EC-3-.22-0-*	.375	.875	.22	1306EC-3-.22-1-*	.375	.875	.22	1306EC-3-.22-10-1.6-*	.437	.875
.27	1306EC-3-.27-0-*	.437	.875	.27	1306EC-3-.27-1-*	.437	.875	.27	1306EC-3-.27-10-1.6-*	.500	.875
.33	1306EC-3-.33-0-*	.437	.875	.33	1306EC-3-.33-1-*	.500	.875	.33	1306EC-3-.33-10-1.6-*	.500	.875
.39	1306EC-3-.39-0-*	.500	.875	.39	1306EC-3-.39-1-*	.500	.875	.39	1306EC-3-.39-10-1.6-*	.500	1.190
.47	1306EC-3-.47-0-*	.500	1.190	.47	1306EC-3-.47-1-*	.500	1.190	.47	1306EC-3-.47-10-1.6-*	.500	1.190
.56	1306EC-3-.56-0-*	.500	1.190	.56	1306EC-3-.56-1-*	.500	1.190				

* - Please insert appropriate tolerance code

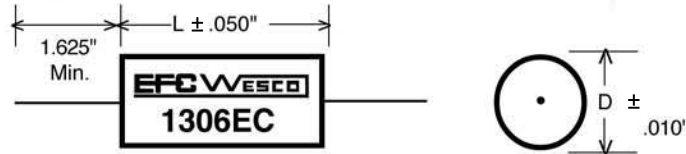


Please consult factory for special requirements, including non-standard values and sizes

1306EC
Tubular Plastic Case
(Axial Leads)

Polyester and Foil Capacitors

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG



Dimensions and Ratings

Cap.	200 VDC		
μF	Part #	D	L
.001	1306EC-3-.001-2-*	.187	.375
.0012	1306EC-3-.0012-2-*	.187	.375
.0015	1306EC-3-.0015-2-*	.187	.375
.0022	1306EC-3-.0022-2-*	.187	.375
.0027	1306EC-3-.0027-2-*	.225	.375
.0039	1306EC-3-.0039-2-*	.225	.375
.0047	1306EC-3-.0047-2-*	.187	.500
.0056	1306EC-3-.0056-2-*	.225	.500
.0068	1306EC-3-.0068-2-*	.225	.500
.0082	1306EC-3-.0082-2-*	.225	.500
.01	1306EC-3-.01-2-*	.225	.500
.012	1306EC-3-.012-2-*	.260	.550
.015	1306EC-3-.015-2-*	.260	.550
.018	1306EC-3-.018-2-*	.250	.625
.022	1306EC-3-.022-2-*	.250	.625
.027	1306EC-3-.027-2-*	.312	.625
.033	1306EC-3-.033-2-*	.312	.625
.039	1306EC-3-.039-2-*	.312	.625
.047	1306EC-3-.047-2-*	.312	.750
.056	1306EC-3-.056-2-*	.375	.750
.068	1306EC-3-.068-2-*	.375	.750
.082	1306EC-3-.082-2-*	.375	.875
.1	1306EC-3-.1-2-*	.437	.875
.12	1306EC-3-.12-2-*	.437	.875
.15	1306EC-3-.15-2-*	.500	.875
.18	1306EC-3-.18-2-*	.500	.875
.22	1306EC-3-.22-2-*	.500	1.190

Cap.	400 VDC		
μF	Part #	D	L
.001	1306EC-3-.001-4-*	.187	.375
.0012	1306EC-3-.0012-4-*	.225	.375
.0015	1306EC-3-.0015-4-*	.225	.375
.0022	1306EC-3-.0022-4-*	.187	.500
.0027	1306EC-3-.0027-4-*	.187	.500
.0039	1306EC-3-.0039-4-*	.225	.500
.0047	1306EC-3-.0047-4-*	.225	.500
.0056	1306EC-3-.0056-4-*	.260	.550
.0068	1306EC-3-.0068-4-*	.260	.550
.0082	1306EC-3-.0082-4-*	.225	.625
.01	1306EC-3-.01-4-*	.250	.625
.012	1306EC-3-.012-4-*	.312	.625
.015	1306EC-3-.015-4-*	.312	.625
.018	1306EC-3-.018-4-*	.312	.625
.022	1306EC-3-.022-4-*	.312	.750
.027	1306EC-3-.027-4-*	.312	.750
.033	1306EC-3-.033-4-*	.312	.750
.039	1306EC-3-.039-4-*	.312	.875
.047	1306EC-3-.047-4-*	.312	.875
.056	1306EC-3-.056-4-*	.437	.875
.068	1306EC-3-.068-4-*	.437	.875
.082	1306EC-3-.082-4-*	.500	.875
.1	1306EC-3-.1-4-*	.500	1.190
.12	1306EC-3-.12-4-*	.500	1.190

Cap.	600 VDC		
μF	Part #	D	L
.001	1306EC-3-.001-6-*	.187	.500
.0012	1306EC-3-.0012-6-*	.187	.500
.0015	1306EC-3-.0015-6-*	.225	.500
.0022	1306EC-3-.0022-6-*	.260	.550
.0027	1306EC-3-.0027-6-*	.260	.550
.0039	1306EC-3-.0039-6-*	.225	.625
.0047	1306EC-3-.0047-6-*	.250	.625
.0056	1306EC-3-.0056-6-*	.312	.625
.0068	1306EC-3-.0068-6-*	.312	.625
.0082	1306EC-3-.0082-6-*	.312	.625
.01	1306EC-3-.01-6-*	.312	.750
.012	1306EC-3-.012-6-*	.312	.750
.015	1306EC-3-.015-6-*	.375	.750
.018	1306EC-3-.018-6-*	.375	.750
.022	1306EC-3-.022-6-*	.375	.875
.027	1306EC-3-.027-6-*	.437	.875
.033	1306EC-3-.033-6-*	.437	.875
.039	1306EC-3-.039-6-*	.500	.875
.047	1306EC-3-.047-6-*	.500	.875
.056	1306EC-3-.056-6-*	.500	1.190
.068	1306EC-3-.068-6-*	.500	1.190

* - Please insert appropriate tolerance code

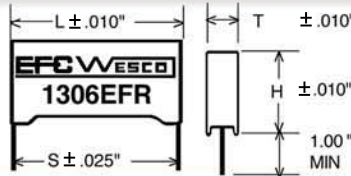


Please consult factory for special requirements, including non-standard values and sizes

1306EFR
Rectangular Plastic Case
(Radial Leads)

**Polyester and
Foil Capacitors**

Lead Specs -
Tinned Copperweld
B through E cases: 22 AWG
F through Q cases: 20 AWG



Dimensions and Ratings

63 VDC / 40 VAC						160 VDC / 100 VAC					
Cap.	Part #	T	L	H	S	Cap.	Part #	T	L	H	S
μF		in. (mm)	in. (mm)	in. (mm)	in. (mm)	μF		in. (mm)	in. (mm)	in. (mm)	in. (mm)
.001	1306EFR-B-.001-.63-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)	.001	1306EFR-B-.001-1.6-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)
.0012	1306EFR-B-.0012-.63-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)	.0012	1306EFR-B-.0012-1.6-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)
.0015	1306EFR-B-.0015-.63-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)	.0015	1306EFR-B-.0015-1.6-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)
.0022	1306EFR-B-.0022-.63-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)	.0022	1306EFR-B-.0022-1.6-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)
.0027	1306EFR-B-.0027-.63-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)	.0027	1306EFR-B-.0027-1.6-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)
.0039	1306EFR-B-.0039-.63-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)	.0039	1306EFR-B-.0039-1.6-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)
.0047	1306EFR-B-.0047-.63-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)	.0047	1306EFR-B-.0047-1.6-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)
.0056	1306EFR-B-.0056-.63-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)	.0056	1306EFR-B-.0056-1.6-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)
.0068	1306EFR-B-.0068-.63-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)	.0068	1306EFR-B-.0068-1.6-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)
.0082	1306EFR-B-.0082-.63-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)	.0082	1306EFR-B-.0082-1.6-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)
.01	1306EFR-B-.01-.63-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)	.01	1306EFR-B-.01-1.6-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)
.012	1306EFR-B-.012-.63-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)	.012	1306EFR-B-.012-1.6-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)
.015	1306EFR-B-.015-.63-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)	.015	1306EFR-B-.015-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.018	1306EFR-B-.018-.63-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)	.018	1306EFR-C-.018-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.022	1306EFR-C-.022-.63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.022	1306EFR-C-.022-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.027	1306EFR-C-.027-.63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.027	1306EFR-C-.027-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.033	1306EFR-C-.033-.63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.033	1306EFR-D-.033-1.6-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.039	1306EFR-C-.039-.63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.039	1306EFR-D-.039-1.6-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.047	1306EFR-C-.047-.63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.047	1306EFR-D-.047-1.6-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.056	1306EFR-D-.056-.63-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)	.056	1306EFR-E-.056-1.6-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.068	1306EFR-D-.068-.63-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)	.068	1306EFR-F-.068-1.6-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.082	1306EFR-E-.082-.63-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)	.082	1306EFR-G-.082-1.6-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.1	1306EFR-E-.1-.63-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)	.1	1306EFR-G-.1-1.6-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.12	1306EFR-F-.12-.63-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)	.12	1306EFR-G-.12-1.6-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.15	1306EFR-G-.15-.63-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)	.15	1306EFR-H-.15-1.6-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.18	1306EFR-G-.18-.63-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)	.18	1306EFR-H-.18-1.6-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.22	1306EFR-H-.22-.63-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)	.22	1306EFR-K-.22-1.6-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.27	1306EFR-H-.27-.63-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)	.27	1306EFR-M-.27-1.6-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.33	1306EFR-J-.33-.63-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)	.27	1306EFR-K-.27-1.6-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.33	1306EFR-L-.33-.63-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)	.27	1306EFR-M-.27-1.6-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.39	1306EFR-K-.39-.63-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)	.33	1306EFR-N-.33-1.6-*	.335 (8.5)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.39	1306EFR-M-.39-.63-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)	.39	1306EFR-N-.39-1.6-*	.335 (8.5)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.47	1306EFR-N-.47-.63-*	.335 (8.5)	1.04 (26.5)	.748 (19.0)	.886 (22.5)	.47	1306EFR-O-.47-1.6-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.56	1306EFR-N-.56-.63-*	.335 (8.5)	1.04 (26.5)	.748 (19.0)	.886 (22.5)	.56	1306EFR-P-.56-1.6-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.68	1306EFR-O-.68-.63-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)	.68	1306EFR-P-.68-1.6-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.82	1306EFR-O-.82-.63-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)	.82	1306EFR-P-.82-1.6-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
1.0	1306EFR-P-1.0-.63-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)	1.0	1306EFR-Q-1.0-1.6-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)
1.25	1306EFR-Q-1.25-.63-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)						
1.5	1306EFR-Q-1.5-.63-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)						

* - Please insert appropriate tolerance code

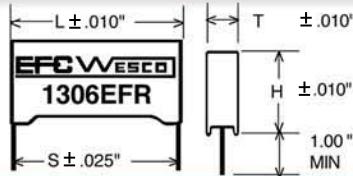


Please consult factory for special requirements, including non-standard values and sizes

1306EFR
Rectangular Plastic Case
(Radial Leads)

Polyester and Foil Capacitors

Lead Specs -
Tinned Copperweld
B through E cases: 22 AWG
F through Q cases: 20 AWG



Dimensions and Ratings

250 VDC / 160 VAC						400 VDC / 220 VAC					
Cap.	Part #	T	L	H	S	Cap.	Part #	T	L	H	S
μF		in. (mm)	in. (mm)	in. (mm)	in. (mm)	μF		in. (mm)	in. (mm)	in. (mm)	in. (mm)
.001	1306EFR-B-.001-2.5-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)	.001	1306EFR-B-.001-4-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)
.0012	1306EFR-B-.0012-2.5-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)	.0012	1306EFR-B-.0012-4-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)
.0015	1306EFR-B-.0015-2.5-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)	.0015	1306EFR-B-.0015-4-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)
.0022	1306EFR-B-.0022-2.5-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)	.0022	1306EFR-B-.0022-4-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)
.0027	1306EFR-B-.0027-2.5-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)	.0027	1306EFR-C-.0027-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0039	1306EFR-B-.0039-2.5-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)	.0039	1306EFR-C-.0039-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0047	1306EFR-B-.0047-2.5-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)	.0047	1306EFR-C-.0047-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0056	1306EFR-B-.0056-2.5-*	.157 (4.0)	.354 (9.0)	.413 (10.5)	.295 (7.5)	.0056	1306EFR-C-.0056-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0068	1306EFR-C-.0068-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.0068	1306EFR-D-.0068-4-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.0082	1306EFR-C-.0082-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.0082	1306EFR-D-.0082-4-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.01	1306EFR-C-.01-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.01	1306EFR-E-.01-4-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.012	1306EFR-C-.012-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.012	1306EFR-E-.012-4-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.015	1306EFR-C-.015-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.015	1306EFR-F-.015-4-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.018	1306EFR-D-.018-2.5-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)	.018	1306EFR-F-.018-4-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.022	1306EFR-E-.022-2.5-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)	.022	1306EFR-G-.022-4-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.027	1306EFR-E-.027-2.5-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)	.027	1306EFR-G-.027-4-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.033	1306EFR-F-.033-2.5-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)	.033	1306EFR-H-.033-4-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.039	1306EFR-F-.039-2.5-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)	.039	1306EFR-H-.039-4-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.047	1306EFR-G-.047-2.5-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)	.047	1306EFR-H-.047-4-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.056	1306EFR-G-.056-2.5-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)	.056	1306EFR-K-.056-4-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.068	1306EFR-H-.068-2.5-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)	.068	1306EFR-M-.068-4-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.082	1306EFR-H-.082-2.5-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)	.082	1306EFR-M-.082-4-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.1	1306EFR-J-.1-2.5-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)	.068	1306EFR-M-.068-4-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.1	1306EFR-L-.1-2.5-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)	.082	1306EFR-N-.082-4-*	.335 (8.5)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.12	1306EFR-K-.12-2.5-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)	.1	1306EFR-N-.1-4-*	.335 (8.5)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.12	1306EFR-M-.12-2.5-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)	.12	1306EFR-O-.12-4-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.15	1306EFR-N-.15-2.5-*	.335 (8.5)	1.04 (26.5)	.748 (19.0)	.886 (22.5)	.15	1306EFR-P-.15-4-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.18	1306EFR-N-.18-2.5-*	.335 (8.5)	1.04 (26.5)	.748 (19.0)	.886 (22.5)	.18	1306EFR-P-.18-4-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.22	1306EFR-O-.22-2.5-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)	.22	1306EFR-Q-.22-4-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)
.27	1306EFR-O-.27-2.5-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)	.27	1306EFR-Q-.27-4-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)
.33	1306EFR-P-.33-2.5-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)						
.39	1306EFR-P-.39-2.5-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)						
.47	1306EFR-Q-.47-2.5-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)						
.56	1306EFR-Q-.56-2.5-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)						

* - Please insert appropriate tolerance code

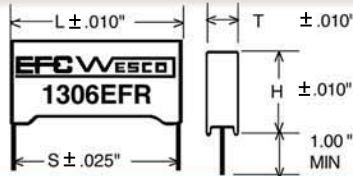


Please consult factory for special requirements, including non-standard values and sizes

1306EFR
Rectangular Plastic Case
(Radial Leads)

Polyester and Foil Capacitors

Lead Specs -
Tinned Copperweld
B through E cases: 22 AWG
F through Q cases: 20 AWG



Dimensions and Ratings

630 VDC / 250 VAC					
Cap.	Part #	T	L	H	S
μF		in. (mm)	in. (mm)	in. (mm)	in. (mm)
.001	1306EFR-C--001-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0012	1306EFR-C--0012-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0015	1306EFR-C--0015-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0022	1306EFR-C--0022-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0027	1306EFR-D-.0027-6.3-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.0039	1306EFR-E-.0039-6.3-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.0047	1306EFR-E-.0047-6.3-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.0056	1306EFR-F-.0056-6.3-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.0068	1306EFR-F-.0068-6.3-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.0082	1306EFR-F-.0082-6.3-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.01	1306EFR-G-.01-6.3-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.012	1306EFR-G-.012-6.3-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.015	1306EFR-H-.015-6.3-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.018	1306EFR-H-.018-6.3-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.022	1306EFR-H-.022-6.3-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.027	1306EFR-K-.027-6.3-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.027	1306EFR-M-.027-6.3-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.033	1306EFR-K-.033-6.3-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.033	1306EFR-M-.033-6.3-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.039	1306EFR-N-.039-6.3-*	.335 (8.5)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.047	1306EFR-N-.047-6.3-*	.335 (8.5)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.056	1306EFR-O-.056-6.3-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.068	1306EFR-O-.068-6.3-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.082	1306EFR-P-.082-6.3-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.1	1306EFR-P-.1-6.3-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.12	1306EFR-P-.12-6.3-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.15	1306EFR-Q-.15-6.3-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)

* - Please insert appropriate tolerance code

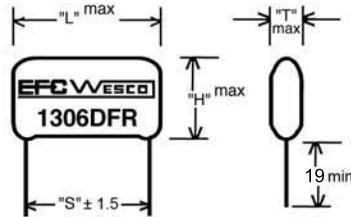


1306DFR
Epoxy Dipped (Radial Leads)

Polyester and Foil Capacitors

Lead Specs -
Tinned Copperweld

L	S	LEAD DIA
10.5	7.5	0.6
13.0	10.0	0.6
18.5	15.0	0.8
26.0	22.5	0.8
31.0	27.5	0.8
36.0	32.0	0.8
44.0	38.0	1.0



All dimensions
in mm

Dimensions and Ratings

100 VDC					160 VDC					250 VDC				
Cap.	Part #	T	H	L	Cap.	Part #	T	H	L	Cap.	Part #	T	H	L
.001	1306DFR-3-.001-1-*	4.0	8.0	10.5	.001	1306DFR-3-.001-1.6-*	4.0	8.0	10.5	.001	1306DFR-3-.001-2.5-*	4.0	8.0	10.5
.0012	1306DFR-3-.0012-1-*	4.0	8.0	10.5	.0012	1306DFR-3-.0012-1.6-*	4.0	8.0	10.5	.0012	1306DFR-3-.0012-2.5-*	4.0	8.0	10.5
.0015	1306DFR-3-.0015-1-*	4.0	8.0	10.5	.0015	1306DFR-3-.0015-1.6-*	4.0	8.0	10.5	.0015	1306DFR-3-.0015-2.5-*	4.0	8.0	10.5
.0022	1306DFR-3-.0022-1-*	4.0	8.0	10.5	.0022	1306DFR-3-.0022-1.6-*	4.5	8.0	10.5	.0022	1306DFR-3-.0022-2.5-*	4.5	8.5	10.5
.0027	1306DFR-3-.0027-1-*	4.0	8.0	10.5	.0027	1306DFR-3-.0027-1.6-*	4.5	8.0	10.5	.0027	1306DFR-3-.0027-2.5-*	4.5	8.5	10.5
.0039	1306DFR-3-.0039-1-*	4.5	8.0	10.5	.0039	1306DFR-3-.0039-1.6-*	4.5	9.0	10.5	.0039	1306DFR-3-.0039-2.5-*	4.5	9.0	10.5
.0047	1306DFR-3-.0047-1-*	4.5	8.5	10.5	.0047	1306DFR-3-.0047-1.6-*	4.5	9.0	10.5	.0047	1306DFR-3-.0047-2.5-*	4.5	9.0	10.5
.0056	1306DFR-3-.0056-1-*	4.5	8.5	10.5	.0056	1306DFR-3-.0056-1.6-*	4.5	9.0	10.5	.0056	1306DFR-3-.0056-2.5-*	4.5	9.0	10.5
.0068	1306DFR-3-.0068-1-*	4.5	9.0	10.5	.0068	1306DFR-3-.0068-1.6-*	4.5	9.0	10.5	.0068	1306DFR-3-.0068-2.5-*	4.5	9.0	10.5
.0082	1306DFR-3-.0082-1-*	4.5	9.0	10.5	.0082	1306DFR-3-.0082-1.6-*	4.5	9.0	10.5	.0082	1306DFR-3-.0082-2.5-*	4.5	9.0	13.0
.01	1306DFR-3-.01-1-*	4.5	9.0	10.5	.01	1306DFR-3-.01-1.6-*	4.5	9.0	10.5	.01	1306DFR-3-.01-2.5-*	4.5	9.0	13.0
.012	1306DFR-3-.012-1-*	4.5	9.0	10.5	.012	1306DFR-3-.012-1.6-*	4.5	9.0	10.5	.012	1306DFR-3-.012-2.5-*	4.5	9.0	13.0
.015	1306DFR-3-.015-1-*	4.5	9.0	10.5	.015	1306DFR-3-.015-1.6-*	4.5	9.0	13.0	.015	1306DFR-3-.015-2.5-*	5.0	10.0	13.0
.018	1306DFR-3-.018-1-*	4.5	9.0	10.5	.018	1306DFR-3-.018-1.6-*	4.5	9.5	13.0	.018	1306DFR-3-.018-2.5-*	5.5	11.0	13.0
.022	1306DFR-3-.022-1-*	4.5	9.0	10.5	.022	1306DFR-3-.022-1.6-*	5.0	10.0	13.0	.022	1306DFR-3-.022-2.5-*	6.0	12.0	13.0
.027	1306DFR-3-.027-1-*	4.5	9.0	13.5	.027	1306DFR-3-.027-1.6-*	5.5	11.0	13.0	.027	1306DFR-3-.027-2.5-*	5.0	10.0	18.5
.033	1306DFR-3-.033-1-*	5.0	9.5	13.0	.033	1306DFR-3-.033-1.6-*	6.0	12.5	13.0	.033	1306DFR-3-.033-2.5-*	5.5	10.5	18.5
.039	1306DFR-3-.039-1-*	5.0	10.0	13.0	.039	1306DFR-3-.039-1.6-*	5.0	10.0	18.5	.039	1306DFR-3-.039-2.5-*	5.5	11.0	18.5
.047	1306DFR-3-.047-1-*	5.5	11.0	13.0	.047	1306DFR-3-.047-1.6-*	5.5	10.5	18.5	.047	1306DFR-3-.047-2.5-*	6.0	12.0	18.5
.056	1306DFR-3-.056-1-*	6.0	12.0	13.0	.056	1306DFR-3-.056-1.6-*	5.5	11.0	18.5	.056	1306DFR-3-.056-2.5-*	6.5	12.5	18.5
.068	1306DFR-3-.068-1-*	6.5	12.5	13.0	.068	1306DFR-3-.068-1.6-*	6.0	12.0	18.5	.068	1306DFR-3-.068-2.5-*	7.0	13.0	18.5
.082	1306DFR-3-.082-1-*	5.0	10.0	18.5	.082	1306DFR-3-.082-1.6-*	6.5	12.5	18.5	.082	1306DFR-3-.082-2.5-*	7.5	14.0	18.5
.1	1306DFR-3-.1-1-*	5.5	11.0	18.5	.1	1306DFR-3-.1-1.6-*	7.5	13.5	18.5	.1	1306DFR-3-.1-2.5-*	8.5	15.5	18.5
.12	1306DFR-3-.12-1-*	6.0	12.0	18.5	.12	1306DFR-3-.12-1.6-*	8.0	14.0	18.5	.12	1306DFR-3-.12-2.5-*	8.0	14.0	26.0
.15	1306DFR-3-.15-1-*	6.5	12.5	18.5	.15	1306DFR-3-.15-1.6-*	8.5	16.0	18.5	.15	1306DFR-3-.15-2.5-*	8.5	15.5	26.0
.18	1306DFR-3-.18-1-*	7.5	13.5	18.5	.18	1306DFR-3-.18-1.6-*	8.0	14.0	26.0	.18	1306DFR-3-.18-2.5-*	9.0	16.5	26.0
.22	1306DFR-3-.22-1-*	8.5	15.5	18.5	.22	1306DFR-3-.22-1.6-*	8.5	15.5	26.0	.22	1306DFR-3-.22-2.5-*	9.5	18.0	26.0
.27	1306DFR-3-.27-1-*	8.0	14.0	26.0	.27	1306DFR-3-.27-1.6-*	9.0	16.5	26.0	.27	1306DFR-3-.27-2.5-*	9.5	18.0	31.0
.33	1306DFR-3-.33-1-*	8.5	15.5	26.0	.33	1306DFR-3-.33-1.6-*	9.5	18.0	26.0	.33	1306DFR-3-.33-2.5-*	10.0	20.0	31.0
.39	1306DFR-3-.39-1-*	9.0	16.5	26.0	.39	1306DFR-3-.39-1.6-*	9.5	18.0	31.0	.39	1306DFR-3-.39-2.5-*	11.0	21.0	31.0
.47	1306DFR-3-.47-1-*	9.5	18.0	26.0	.47	1306DFR-3-.47-1.6-*	10.0	20.0	31.0	.47	1306DFR-3-.47-2.5-*	12.0	22.0	31.0
.56	1306DFR-3-.56-1-*	9.0	16.5	31.0	.56	1306DFR-3-.56-1.6-*	11.0	21.0	31.0	.56	1306DFR-3-.56-2.5-*	13.0	24.0	31.0
.68	1306DFR-3-.68-1-*	9.5	18.0	31.0	.68	1306DFR-3-.68-1.6-*	12.5	22.0	31.0	.68	1306DFR-3-.68-2.5-*	13.0	24.0	36.0
.82	1306DFR-3-.82-1-*	10.5	20.0	31.0	.82	1306DFR-3-.82-1.6-*	13.0	24.0	31.0	.82	1306DFR-3-.82-2.5-*	14.5	26.0	36.0
1.0	1306DFR-3-1.0-1-*	12.5	24.0	31.0	1.0	1306DFR-3-1.0-1.6-*	15.0	26.0	31.0	1.0	1306DFR-3-1.0-2.5-*	14.5	26.0	44.0

* - Please insert appropriate tolerance code

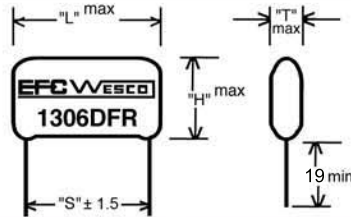


1306DFR Epoxy Dipped (Radial Leads)

Polyester and Foil Capacitors

Lead Specs -
Tinned Copperweld

L	S	LEAD DIA
10.5	7.5	0.6
13.0	10.0	0.6
18.5	15.0	0.8
26.0	22.5	0.8
31.0	27.5	0.8
36.0	32.0	0.8
44.0	38.0	1.0



All dimensions
in mm

Dimensions and Ratings

400 VDC					630 VDC					1000 VDC				
Cap.	Part #	T	H	L	Cap.	Part #	T	H	L	Cap.	Part #	T	H	L
.001	1306DFR-3-.001-4-*	4.0	8.0	10.5	.001	1306DFR-3-.001-6.3-*	4.0	9.0	10.5	.001	1306DFR-3-.001-10-*	4.5	9.0	13.0
.0012	1306DFR-3-.0012-4-*	4.0	9.0	10.5	.0012	1306DFR-3-.0012-6.3-*	4.0	9.0	10.5	.0012	1306DFR-3-.0012-10-*	4.5	9.5	13.0
.0015	1306DFR-3-.0015-4-*	4.5	9.0	10.5	.0015	1306DFR-3-.0015-6.3-*	4.5	9.5	10.5	.0015	1306DFR-3-.0015-10-*	5.0	10.0	13.0
.0022	1306DFR-3-.0022-4-*	4.5	9.0	10.5	.0022	1306DFR-3-.0022-6.3-*	4.5	9.5	13.0	.0022	1306DFR-3-.0022-10-*	5.5	11.0	13.0
.0027	1306DFR-3-.0027-4-*	4.5	9.0	10.5	.0027	1306DFR-3-.0027-6.3-*	5.0	10.0	13.0	.0027	1306DFR-3-.0027-10-*	5.5	11.5	13.0
.0039	1306DFR-3-.0039-4-*	4.5	9.0	10.5	.0039	1306DFR-3-.0039-6.3-*	5.5	11.0	13.0	.0039	1306DFR-3-.0039-10-*	6.0	12.5	13.0
.0047	1306DFR-3-.0047-4-*	4.5	9.5	10.5	.0047	1306DFR-3-.0047-6.3-*	6.0	12.0	13.0	.0047	1306DFR-3-.0047-10-*	5.5	11.0	18.5
.0056	1306DFR-3-.0056-4-*	4.5	9.5	13.0	.0056	1306DFR-3-.0056-6.3-*	6.5	12.5	13.0	.0056	1306DFR-3-.0056-10-*	6.0	11.5	18.5
.0068	1306DFR-3-.0068-4-*	5.0	10.0	13.0	.0068	1306DFR-3-.0068-6.3-*	5.0	10.0	18.5	.0068	1306DFR-3-.0068-10-*	6.0	12.5	18.5
.0082	1306DFR-3-.0082-4-*	5.5	10.5	13.0	.0082	1306DFR-3-.0082-6.3-*	5.5	11.0	18.5	.0082	1306DFR-3-.0082-10-*	7.0	13.0	18.5
.01	1306DFR-3-.01-4-*	5.5	11.0	13.0	.01	1306DFR-3-.01-6.3-*	6.0	12.0	18.5	.01	1306DFR-3-.01-10-*	7.5	14.0	18.5
.012	1306DFR-3-.012-4-*	6.0	12.0	13.0	.012	1306DFR-3-.012-6.3-*	6.5	12.5	18.5	.012	1306DFR-3-.012-10-*	8.0	14.5	18.5
.015	1306DFR-3-.015-4-*	6.5	12.5	13.0	.015	1306DFR-3-.015-6.3-*	7.0	13.0	18.5	.015	1306DFR-3-.015-10-*	9.0	16.5	18.5
.018	1306DFR-3-.018-4-*	5.5	11.0	18.5	.018	1306DFR-3-.018-6.3-*	7.5	13.5	18.5	.018	1306DFR-3-.018-10-*	8.0	14.0	26.0
.022	1306DFR-3-.022-4-*	6.0	12.0	18.5	.022	1306DFR-3-.022-6.3-*	8.0	14.5	18.5	.022	1306DFR-3-.022-10-*	8.5	15.5	26.0
.027	1306DFR-3-.027-4-*	6.5	12.5	18.5	.027	1306DFR-3-.027-6.3-*	7.5	13.5	26.0	.027	1306DFR-3-.027-10-*	9.0	16.5	26.0
.033	1306DFR-3-.033-4-*	7.5	13.5	18.5	.033	1306DFR-3-.033-6.3-*	8.5	15.5	26.0	.033	1306DFR-3-.033-10-*	9.5	18.0	26.0
.039	1306DFR-3-.039-4-*	8.0	14.0	18.5	.039	1306DFR-3-.039-6.3-*	9.0	16.5	26.0	.039	1306DFR-3-.039-10-*	10.0	19.0	26.0
.047	1306DFR-3-.047-4-*	8.5	15.5	18.5	.047	1306DFR-3-.047-6.3-*	9.5	18.0	26.0	.047	1306DFR-3-.047-10-*	10.0	19.0	31.0
.056	1306DFR-3-.056-4-*	7.5	13.5	26.0	.056	1306DFR-3-.056-6.3-*	9.0	16.5	31.0	.056	1306DFR-3-.056-10-*	10.5	20.0	31.0
.068	1306DFR-3-.068-4-*	8.0	14.0	26.0	.068	1306DFR-3-.068-6.3-*	9.5	17.0	31.0	.068	1306DFR-3-.068-10-*	12.0	22.0	31.0
.082	1306DFR-3-.082-4-*	8.5	15.5	26.0	.082	1306DFR-3-.082-6.3-*	10.0	19.0	31.0	.082	1306DFR-3-.082-10-*	12.5	23.0	31.0
.1	1306DFR-3-.1-4-*	9.0	16.5	26.0	.1	1306DFR-3-.1-6.3-*	10.5	20.0	31.0	.1	1306DFR-3-.1-10-*	15.0	27.0	31.0
.12	1306DFR-3-.12-4-*	9.5	18.0	26.0	.12	1306DFR-3-.12-6.3-*	11.5	22.0	31.0	.12	1306DFR-3-.12-10-*	13.5	24.0	36.0
.15	1306DFR-3-.15-4-*	9.5	18.0	31.0	.15	1306DFR-3-.15-6.3-*	14.0	24.0	31.0	.15	1306DFR-3-.15-10-*	15.0	27.0	36.0
.18	1306DFR-3-.18-4-*	10.0	19.0	31.0	.18	1306DFR-3-.18-6.3-*	13.0	23.0	36.0	.18	1306DFR-3-.18-10-*	14.5	26.0	44.0
.22	1306DFR-3-.22-4-*	11.5	20.0	31.0	.22	1306DFR-3-.22-6.3-*	15.0	26.0	36.0	.22	1306DFR-3-.22-10-*	16.0	28.0	44.0
.27	1306DFR-3-.27-4-*	12.5	22.0	31.0	.27	1306DFR-3-.27-6.3-*	16.0	28.0	36.0					
.33	1306DFR-3-.33-4-*	13.0	23.0	36.0	.33	1306DFR-3-.33-6.3-*	16.0	28.0	44.0					
.39	1306DFR-3-.39-4-*	13.5	25.0	36.0	.39	1306DFR-3-.39-6.3-*	16.5	30.0	44.0					
.47	1306DFR-3-.47-4-*	15.0	27.0	36.0	.47	1306DFR-3-.47-6.3-*	18.0	32.0	44.0					
.56	1306DFR-3-.56-4-*	14.0	25.0	44.0										
.68	1306DFR-3-.68-4-*	15.0	27.0	44.0										
.82	1306DFR-3-.82-4-*	16.5	30.0	44.0										
1.0	1306DFR-3-1.0-4-*	18.0	32.0	44.0										

* - Please insert appropriate tolerance code

Series 1313 Metallized Polyester

Features: Flame retardant to UL94, small size, self healing, low costs.

Applications: Medical electronics, telecommunications, high voltage power supplies.

Packaging: Axial wrap and fill (TF, TC), radial lead box (EFR, DFR), axial lead epoxy tube (EC).

Specifications

1) Temperature Range

-55°C to 85°C at rated voltage to 125°C with 50% voltage derating.

2) Capacitance

0.001μF to 20μF

3) Dielectric Strength

At 25°C, 150% of rated voltage when applied terminal to terminal for one minute through a current limiting resistance.

4) Insulation Resistance

At 25°C after 2 minutes charge time at rated voltage or 500 VDC, whichever is less, the minimum IR shall be 30,000 Megohm-Microfarads, but need not exceed 50,000 Megohms for voltages greater than 50 VDC, and 15,000 Megohm-Microfarads, but need not exceed 30,000 Megohms for 50 VDC or less.

5) Humidity Resistance

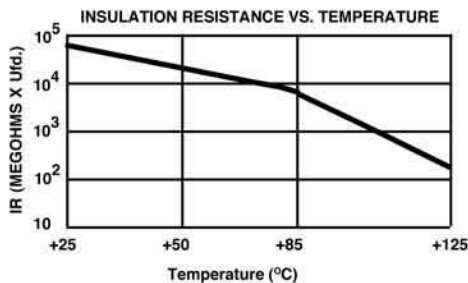
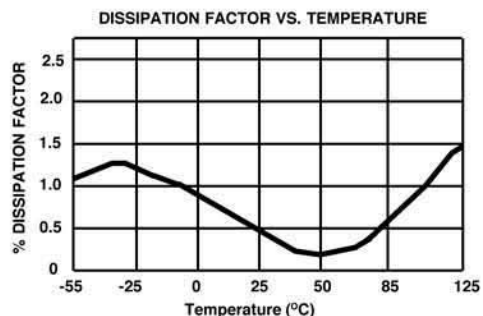
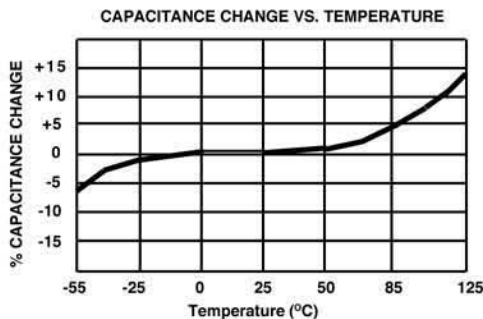
Series 1313 shall meet the requirements of MIL-STD. 202, Method 103B.

6) Dissipation Factor

Shall be 1.0% max. when measured at 1KHz.

7) Life Test

Will withstand the application of 140% rated voltage at + 85°C for 250 hours with not more than one failure in 12 permitted.



**Typical Temperature Curves
Metallized Polyester**



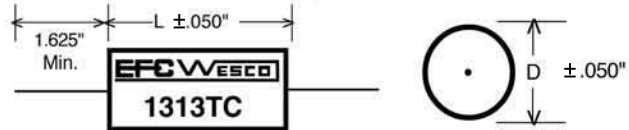
Please consult factory for special requirements, including non-standard values and sizes

1313TC Tubular Wrap & Fill

Metallized Polyester Capacitors

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG

Dimensions and Ratings



50 VDC			
Cap. μ F	Part #	D	L
.001	1313TC-3-.001-0-*	.180	.406
.0012	1313TC-3-.0012-0-*	.180	.406
.0015	1313TC-3-.0015-0-*	.180	.406
.0018	1313TC-3-.0018-0-*	.180	.406
.0022	1313TC-3-.0022-0-*	.180	.406
.0027	1313TC-3-.0027-0-*	.180	.406
.0033	1313TC-3-.0033-0-*	.180	.406
.0039	1313TC-3-.0039-0-*	.180	.406
.0047	1313TC-3-.0047-0-*	.180	.406
.0056	1313TC-3-.0056-0-*	.180	.406
.0068	1313TC-3-.0068-0-*	.180	.406
.0082	1313TC-3-.0082-0-*	.180	.406
.01	1313TC-3-.01-0-*	.180	.406
.012	1313TC-3-.012-0-*	.180	.406
.015	1313TC-3-.015-0-*	.180	.406
.018	1313TC-3-.018-0-*	.180	.406
.022	1313TC-3-.022-0-*	.180	.406
.027	1313TC-3-.027-0-*	.180	.406
.033	1313TC-3-.033-0-*	.180	.406
.039	1313TC-3-.039-0-*	.180	.406
.047	1313TC-3-.047-0-*	.180	.406
.056	1313TC-3-.056-0-*	.180	.406
.068	1313TC-3-.068-0-*	.180	.406
.082	1313TC-3-.082-0-*	.180	.406
.1	1313TC-3-.1-0-*	.180	.406
.12	1313TC-3-.12-0-*	.190	.406
.15	1313TC-3-.15-0-*	.200	.406
.18	1313TC-3-.18-0-*	.220	.406
.22	1313TC-3-.22-0-*	.190	.468
.27	1313TC-3-.27-0-*	.210	.468
.33	1313TC-3-.33-0-*	.230	.468
.39	1313TC-3-.39-0-*	.250	.468
.47	1313TC-3-.47-0-*	.230	.531
.56	1313TC-3-.56-0-*	.250	.531
.68	1313TC-3-.68-0-*	.270	.531
.82	1313TC-3-.82-0-*	.240	.656
1.0	1313TC-3-1.0-0-*	.270	.656
1.25	1313TC-3-1.25-0-*	.300	.656
1.5	1313TC-3-1.5-0-*	.300	.781
2.0	1313TC-3-2.0-0-*	.350	.781
3.0	1313TC-3-3.0-0-*	.400	.781
4.0	1313TC-3-4.0-0-*	.420	.906
5.0	1313TC-3-5.0-0-*	.470	.906
6.0	1313TC-3-6.0-0-*	.440	1.190
10.0	1313TC-3-10.0-0-*	.500	1.190
20.0	1313TC-3-20.0-0-*	.700	1.440

100 VDC			
Cap. μ F	Part #	D	L
.001	1313TC-3-.001-1-*	.180	.406
.0012	1313TC-3-.0012-1-*	.180	.406
.0015	1313TC-3-.0015-1-*	.180	.406
.0018	1313TC-3-.0018-1-*	.180	.406
.0022	1313TC-3-.0022-1-*	.180	.406
.0027	1313TC-3-.0027-1-*	.180	.406
.0033	1313TC-3-.0033-1-*	.180	.406
.0039	1313TC-3-.0039-1-*	.180	.406
.0047	1313TC-3-.0047-1-*	.180	.406
.0056	1313TC-3-.0056-1-*	.180	.406
.0068	1313TC-3-.0068-1-*	.180	.406
.0082	1313TC-3-.0082-1-*	.180	.406
.01	1313TC-3-.01-1-*	.180	.406
.012	1313TC-3-.012-1-*	.180	.406
.015	1313TC-3-.015-1-*	.180	.406
.018	1313TC-3-.018-1-*	.180	.406
.022	1313TC-3-.022-1-*	.180	.406
.027	1313TC-3-.027-1-*	.180	.406
.033	1313TC-3-.033-1-*	.180	.406
.039	1313TC-3-.039-1-*	.180	.406
.047	1313TC-3-.047-1-*	.180	.406
.056	1313TC-3-.056-1-*	.200	.406
.068	1313TC-3-.068-1-*	.220	.406
.082	1313TC-3-.082-1-*	.190	.468
.1	1313TC-3-.1-1-*	.210	.468
.12	1313TC-3-.12-1-*	.220	.468
.15	1313TC-3-.15-1-*	.210	.531
.18	1313TC-3-.18-1-*	.230	.531
.22	1313TC-3-.22-1-*	.250	.531
.27	1313TC-3-.27-1-*	.280	.531
.33	1313TC-3-.33-1-*	.250	.656
.39	1313TC-3-.39-1-*	.270	.656
.47	1313TC-3-.47-1-*	.290	.656
.56	1313TC-3-.56-1-*	.310	.656
.68	1313TC-3-.68-1-*	.300	.781
.82	1313TC-3-.82-1-*	.330	.781
1.0	1313TC-3-1.0-1-*	.360	.781
1.25	1313TC-3-1.25-1-*	.400	.781
1.5	1313TC-3-1.5-1-*	.390	.906
2.0	1313TC-3-2.0-1-*	.440	.906
3.0	1313TC-3-3.0-1-*	.460	1.190
4.0	1313TC-3-4.0-1-*	.530	1.190
5.0	1313TC-3-5.0-1-*	.520	1.440
6.0	1313TC-3-6.0-1-*	.560	1.440
10.0	1313TC-3-10.0-1-*	.690	1.570
20.0	1313TC-3-20.0-1-*	.920	1.690

160 VDC			
Cap. μ F	Part #	D	L
.001	1313TC-3-.001-1.6-*	.180	.406
.0012	1313TC-3-.0012-1.6-*	.180	.406
.0015	1313TC-3-.0015-1.6-*	.180	.406
.0018	1313TC-3-.0018-1.6-*	.180	.406
.0022	1313TC-3-.0022-1.6-*	.180	.406
.0027	1313TC-3-.0027-1.6-*	.180	.406
.0033	1313TC-3-.0033-1.6-*	.180	.406
.0039	1313TC-3-.0039-1.6-*	.180	.406
.0047	1313TC-3-.0047-1.6-*	.180	.406
.0056	1313TC-3-.0056-1.6-*	.180	.406
.0068	1313TC-3-.0068-1.6-*	.180	.406
.0082	1313TC-3-.0082-1.6-*	.180	.406
.01	1313TC-3-.01-1.6-*	.180	.406
.012	1313TC-3-.012-1.6-*	.180	.406
.015	1313TC-3-.015-1.6-*	.180	.406
.018	1313TC-3-.018-1.6-*	.180	.406
.022	1313TC-3-.022-1.6-*	.180	.406
.027	1313TC-3-.027-1.6-*	.200	.406
.033	1313TC-3-.033-1.6-*	.220	.406
.039	1313TC-3-.039-1.6-*	.230	.406
.047	1313TC-3-.047-1.6-*	.240	.406
.056	1313TC-3-.056-1.6-*	.250	.406
.068	1313TC-3-.068-1.6-*	.200	.531
.082	1313TC-3-.082-1.6-*	.220	.531
.1	1313TC-3-.1-1.6-*	.240	.531
.12	1313TC-3-.12-1.6-*	.260	.531
.15	1313TC-3-.15-1.6-*	.240	.656
.18	1313TC-3-.18-1.6-*	.260	.656
.22	1313TC-3-.22-1.6-*	.280	.656
.27	1313TC-3-.27-1.6-*	.310	.656
.33	1313TC-3-.33-1.6-*	.350	.656
.39	1313TC-3-.39-1.6-*	.320	.781
.47	1313TC-3-.47-1.6-*	.350	.781
.56	1313TC-3-.56-1.6-*	.380	.781
.68	1313TC-3-.68-1.6-*	.380	.906
.82	1313TC-3-.82-1.6-*	.410	.906
1.0	1313TC-3-1.0-1.6-*	.450	.906
1.25	1313TC-3-1.25-1.6-*	.430	1.190
1.5	1313TC-3-1.5-1.6-*	.470	1.190
2.0	1313TC-3-2.0-1.6-*	.540	1.190
3.0	1313TC-3-3.0-1.6-*	.580	1.440
4.0	1313TC-3-4.0-1.6-*	.660	1.440
5.0	1313TC-3-5.0-1.6-*	.700	1.570
6.0	1313TC-3-6.0-1.6-*	.770	1.570
10.0	1313TC-3-10.0-1.6-*	.940	1.690
20.0	1313TC-3-20.0-1.6-*	1.200	1.940

* - Please insert appropriate tolerance code



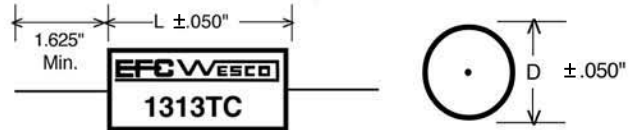
Please consult factory for special requirements, including non-standard values and sizes

1313TC Tubular Wrap & Fill

Metallized Polyester Capacitors

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG

Dimensions and Ratings



200 VDC			
Cap. μ F	Part #	D	L
.001	1313TC-3-.001-2-*	.180	.406
.0012	1313TC-3-.0012-2-*	.180	.406
.0015	1313TC-3-.0015-2-*	.180	.406
.0018	1313TC-3-.0018-2-*	.180	.406
.0022	1313TC-3-.0022-2-*	.180	.406
.0027	1313TC-3-.0027-2-*	.180	.406
.0033	1313TC-3-.0033-2-*	.180	.406
.0039	1313TC-3-.0039-2-*	.180	.406
.0047	1313TC-3-.0047-2-*	.180	.406
.0056	1313TC-3-.0056-2-*	.180	.406
.0068	1313TC-3-.0068-2-*	.180	.406
.0082	1313TC-3-.0082-2-*	.180	.406
.01	1313TC-3-.01-2-*	.180	.406
.012	1313TC-3-.012-2-*	.180	.406
.015	1313TC-3-.015-2-*	.180	.406
.018	1313TC-3-.018-2-*	.180	.406
.022	1313TC-3-.022-2-*	.200	.406
.027	1313TC-3-.027-2-*	.220	.406
.033	1313TC-3-.033-2-*	.240	.406
.039	1313TC-3-.039-2-*	.190	.531
.047	1313TC-3-.047-2-*	.200	.531
.056	1313TC-3-.056-2-*	.210	.531
.068	1313TC-3-.068-2-*	.220	.531
.082	1313TC-3-.082-2-*	.250	.531
.1	1313TC-3-.1-2-*	.270	.531
.12	1313TC-3-.12-2-*	.290	.531
.15	1313TC-3-.15-2-*	.250	.656
.18	1313TC-3-.18-2-*	.290	.656
.22	1313TC-3-.22-2-*	.320	.656
.27	1313TC-3-.27-2-*	.300	.781
.33	1313TC-3-.33-2-*	.330	.781
.39	1313TC-3-.39-2-*	.360	.781
.47	1313TC-3-.47-2-*	.400	.781
.56	1313TC-3-.56-2-*	.380	.906
.68	1313TC-3-.68-2-*	.420	.906
.82	1313TC-3-.82-2-*	.450	.906
1.0	1313TC-3-1.0-2-*	.430	1.190
1.25	1313TC-3-1.25-2-*	.480	1.190
1.5	1313TC-3-1.5-2-*	.530	1.190
2.0	1313TC-3-2.0-2-*	.600	1.190
3.0	1313TC-3-3.0-2-*	.650	1.440
4.0	1313TC-3-4.0-2-*	.740	1.440
5.0	1313TC-3-5.0-2-*	.790	1.570
6.0	1313TC-3-6.0-2-*	.820	1.690
10.0	1313TC-3-10.0-2-*	.970	1.940

400 VDC			
Cap. μ F	Part #	D	L
.001	1313TC-3-.001-4-*	.180	.406
.0012	1313TC-3-.0012-4-*	.180	.406
.0015	1313TC-3-.0015-4-*	.180	.406
.0018	1313TC-3-.0018-4-*	.180	.406
.0022	1313TC-3-.0022-4-*	.180	.406
.0027	1313TC-3-.0027-4-*	.180	.406
.0033	1313TC-3-.0033-4-*	.180	.406
.0039	1313TC-3-.0039-4-*	.180	.406
.0047	1313TC-3-.0047-4-*	.180	.406
.0056	1313TC-3-.0056-4-*	.180	.406
.0068	1313TC-3-.0068-4-*	.180	.406
.0082	1313TC-3-.0082-4-*	.180	.406
.01	1313TC-3-.01-4-*	.180	.406
.012	1313TC-3-.012-4-*	.180	.406
.015	1313TC-3-.015-4-*	.180	.406
.018	1313TC-3-.018-4-*	.200	.531
.022	1313TC-3-.022-4-*	.220	.531
.027	1313TC-3-.027-4-*	.240	.531
.033	1313TC-3-.033-4-*	.260	.531
.039	1313TC-3-.039-4-*	.280	.531
.047	1313TC-3-.047-4-*	.250	.656
.056	1313TC-3-.056-4-*	.270	.656
.068	1313TC-3-.068-4-*	.290	.656
.082	1313TC-3-.082-4-*	.320	.656
.1	1313TC-3-.1-4-*	.310	.781
.12	1313TC-3-.12-4-*	.340	.781
.15	1313TC-3-.15-4-*	.370	.781
.18	1313TC-3-.18-4-*	.410	.781
.22	1313TC-3-.22-4-*	.400	.906
.27	1313TC-3-.27-4-*	.440	.906
.33	1313TC-3-.33-4-*	.490	.906
.39	1313TC-3-.39-4-*	.450	1.190
.47	1313TC-3-.47-4-*	.490	1.190
.56	1313TC-3-.56-4-*	.530	1.190
.68	1313TC-3-.68-4-*	.580	1.190
.82	1313TC-3-.82-4-*	.640	1.190
1.0	1313TC-3-1.0-4-*	.620	1.440
1.25	1313TC-3-1.25-4-*	.690	1.440
1.5	1313TC-3-1.5-4-*	.760	1.440
2.0	1313TC-3-2.0-4-*	.790	1.690
3.0	1313TC-3-3.0-4-*	.960	1.690

600 VDC			
Cap. μ F	Part #	D	L
.001	1313TC-3-.001-6-*	.180	.406
.0012	1313TC-3-.0012-6-*	.180	.406
.0015	1313TC-3-.0015-6-*	.180	.406
.0018	1313TC-3-.0018-6-*	.180	.406
.0022	1313TC-3-.0022-6-*	.180	.406
.0027	1313TC-3-.0027-6-*	.200	.406
.0033	1313TC-3-.0033-6-*	.220	.406
.0039	1313TC-3-.0039-6-*	.240	.406
.0047	1313TC-3-.0047-6-*	.190	.531
.0056	1313TC-3-.0056-6-*	.200	.531
.0068	1313TC-3-.0068-6-*	.210	.531
.0082	1313TC-3-.0082-6-*	.220	.531
.01	1313TC-3-.01-6-*	.240	.531
.012	1313TC-3-.012-6-*	.260	.531
.015	1313TC-3-.015-6-*	.290	.531
.018	1313TC-3-.018-6-*	.250	.656
.022	1313TC-3-.022-6-*	.280	.656
.027	1313TC-3-.027-6-*	.310	.656
.033	1313TC-3-.033-6-*	.340	.656
.039	1313TC-3-.039-6-*	.320	.781
.047	1313TC-3-.047-6-*	.350	.781
.056	1313TC-3-.056-6-*	.380	.781
.068	1313TC-3-.068-6-*	.410	.781
.082	1313TC-3-.082-6-*	.400	.906
.1	1313TC-3-.1-6-*	.440	.906
.12	1313TC-3-.12-6-*	.480	.906
.15	1313TC-3-.15-6-*	.460	1.190
.18	1313TC-3-.18-6-*	.500	1.190
.22	1313TC-3-.22-6-*	.550	1.190
.27	1313TC-3-.27-6-*	.600	1.190
.33	1313TC-3-.33-6-*	.580	1.440
.39	1313TC-3-.39-6-*	.640	1.440
.47	1313TC-3-.47-6-*	.700	1.440
.56	1313TC-3-.56-6-*	.720	1.570
.68	1313TC-3-.68-6-*	.800	1.570
.82	1313TC-3-.82-6-*	.800	1.820
1.0	1313TC-3-1.0-6-*	.880	1.820
1.25	1313TC-3-1.25-6-*	.970	1.820
1.5	1313TC-3-1.5-6-*	.960	2.250
2.0	1313TC-3-2.0-6-*	1.100	2.250

* - Please insert appropriate tolerance code



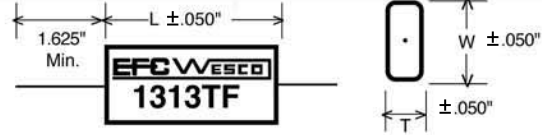
Please consult factory for special requirements, including non-standard values and sizes

1313TF Oval Wrap & Fill

Metallized Polyester Capacitors

Lead Spec.
Tinned Copperweld
Under .190T = 24 AWG
.190 - .380T = 22AWG
Above .380T = 20 AWG

Dimensions and Ratings



50 VDC					100 VDC					160 VDC				
Cap. μ F	Part #	T	W	L	Cap. μ F	Part #	T	W	L	Cap. μ F	Part #	T	W	L
.001	1313TF-3-.001-0*	.125	.225	.406	.001	1313TF-3-.001-1*	.125	.225	.406	.001	1313TF-3-.001-1.6*	.125	.225	.406
.0012	1313TF-3-.0012-0*	.125	.225	.406	.0012	1313TF-3-.0012-1*	.125	.225	.406	.0012	1313TF-3-.0012-1.6*	.125	.225	.406
.0015	1313TF-3-.0015-0*	.125	.225	.406	.0015	1313TF-3-.0015-1*	.125	.225	.406	.0015	1313TF-3-.0015-1.6*	.125	.225	.406
.0018	1313TF-3-.0018-0*	.125	.225	.406	.0018	1313TF-3-.0018-1*	.125	.225	.406	.0018	1313TF-3-.0018-1.6*	.125	.225	.406
.0022	1313TF-3-.0022-0*	.125	.225	.406	.0022	1313TF-3-.0022-1*	.125	.225	.406	.0022	1313TF-3-.0022-1.6*	.125	.225	.406
.0027	1313TF-3-.0027-0*	.125	.225	.406	.0027	1313TF-3-.0027-1*	.125	.225	.406	.0027	1313TF-3-.0027-1.6*	.125	.225	.406
.0033	1313TF-3-.0033-0*	.125	.225	.406	.0033	1313TF-3-.0033-1*	.125	.225	.406	.0033	1313TF-3-.0033-1.6*	.125	.225	.406
.0039	1313TF-3-.0039-0*	.125	.225	.406	.0039	1313TF-3-.0039-1*	.125	.225	.406	.0039	1313TF-3-.0039-1.6*	.125	.225	.406
.0047	1313TF-3-.0047-0*	.125	.225	.406	.0047	1313TF-3-.0047-1*	.125	.225	.406	.0047	1313TF-3-.0047-1.6*	.125	.225	.406
.0056	1313TF-3-.0056-0*	.125	.225	.406	.0056	1313TF-3-.0056-1*	.125	.225	.406	.0056	1313TF-3-.0056-1.6*	.125	.225	.406
.0068	1313TF-3-.0068-0*	.125	.225	.406	.0068	1313TF-3-.0068-1*	.125	.225	.406	.0068	1313TF-3-.0068-1.6*	.125	.225	.406
.0082	1313TF-3-.0082-0*	.125	.225	.406	.0082	1313TF-3-.0082-1*	.125	.225	.406	.0082	1313TF-3-.0082-1.6*	.125	.225	.406
.01	1313TF-3-.01-0*	.125	.225	.406	.01	1313TF-3-.01-1*	.125	.225	.406	.01	1313TF-3-.01-1.6*	.125	.225	.406
.012	1313TF-3-.012-0*	.125	.225	.406	.012	1313TF-3-.012-1*	.125	.225	.406	.012	1313TF-3-.012-1.6*	.125	.225	.406
.015	1313TF-3-.015-0*	.125	.225	.406	.015	1313TF-3-.015-1*	.125	.225	.406	.015	1313TF-3-.015-1.6*	.125	.225	.406
.018	1313TF-3-.018-0*	.125	.225	.406	.018	1313TF-3-.018-1*	.125	.225	.406	.018	1313TF-3-.018-1.6*	.125	.225	.406
.022	1313TF-3-.022-0*	.125	.225	.406	.022	1313TF-3-.022-1*	.125	.225	.406	.022	1313TF-3-.022-1.6*	.126	.225	.406
.027	1313TF-3-.027-0*	.125	.225	.406	.027	1313TF-3-.027-1*	.125	.225	.406	.027	1313TF-3-.027-1.6*	.140	.240	.406
.033	1313TF-3-.033-0*	.125	.225	.406	.033	1313TF-3-.033-1*	.125	.225	.406	.033	1313TF-3-.033-1.6*	.160	.260	.406
.039	1313TF-3-.039-0*	.125	.225	.406	.039	1313TF-3-.039-1*	.125	.225	.406	.039	1313TF-3-.039-1.6*	.170	.270	.406
.047	1313TF-3-.047-0*	.125	.225	.406	.047	1313TF-3-.047-1*	.125	.225	.406	.047	1313TF-3-.047-1.6*	.180	.280	.406
.056	1313TF-3-.056-0*	.125	.225	.406	.056	1313TF-3-.056-1*	.140	.240	.406	.056	1313TF-3-.056-1.6*	.190	.290	.406
.068	1313TF-3-.068-0*	.125	.225	.406	.068	1313TF-3-.068-1*	.160	.260	.406	.068	1313TF-3-.068-1.6*	.140	.240	.531
.082	1313TF-3-.082-0*	.125	.225	.406	.082	1313TF-3-.082-1*	.130	.230	.468	.082	1313TF-3-.082-1.6*	.160	.260	.531
.1	1313TF-3-.1-0*	.125	.225	.406	.1	1313TF-3-.1-1*	.150	.250	.468	.1	1313TF-3-.1-1.6*	.180	.280	.531
.12	1313TF-3-.12-0*	.130	.230	.406	.12	1313TF-3-.12-1*	.160	.260	.468	.12	1313TF-3-.12-1.6*	.200	.300	.531
.15	1313TF-3-.15-0*	.140	.240	.406	.15	1313TF-3-.15-1*	.150	.250	.531	.15	1313TF-3-.15-1.6*	.180	.280	.656
.18	1313TF-3-.18-0*	.160	.260	.406	.18	1313TF-3-.18-1*	.170	.270	.531	.18	1313TF-3-.18-1.6*	.200	.300	.656
.22	1313TF-3-.22-0*	.130	.230	.468	.22	1313TF-3-.22-1*	.190	.290	.531	.22	1313TF-3-.22-1.6*	.220	.320	.656
.27	1313TF-3-.27-0*	.150	.250	.468	.27	1313TF-3-.27-1*	.220	.320	.531	.27	1313TF-3-.27-1.6*	.250	.350	.656
.33	1313TF-3-.33-0*	.170	.270	.468	.33	1313TF-3-.33-1*	.190	.290	.656	.33	1313TF-3-.33-1.6*	.290	.390	.656
.39	1313TF-3-.39-0*	.190	.290	.468	.39	1313TF-3-.39-1*	.210	.310	.656	.39	1313TF-3-.39-1.6*	.240	.370	.781
.47	1313TF-3-.47-0*	.170	.270	.531	.47	1313TF-3-.47-1*	.230	.330	.656	.47	1313TF-3-.47-1.6*	.270	.400	.781
.56	1313TF-3-.56-0*	.190	.290	.531	.56	1313TF-3-.56-1*	.250	.350	.656	.56	1313TF-3-.56-1.6*	.300	.430	.781
.68	1313TF-3-.68-0*	.210	.310	.531	.68	1313TF-3-.68-1*	.220	.350	.781	.68	1313TF-3-.68-1.6*	.300	.430	.906
.82	1313TF-3-.82-0*	.180	.280	.656	.82	1313TF-3-.82-1*	.250	.380	.781	.82	1313TF-3-.82-1.6*	.330	.460	.906
1.0	1313TF-3-1.0-0*	.210	.310	.656	1.0	1313TF-3-1.0-1*	.280	.410	.781	1.0	1313TF-3-1.0-1.6*	.370	.500	.906
1.25	1313TF-3-1.25-0*	.240	.340	.656	1.25	1313TF-3-1.25-1*	.320	.450	.781	1.25	1313TF-3-1.25-1.6*	.320	.490	1.190
1.5	1313TF-3-1.5-0*	.220	.350	.781	1.5	1313TF-3-1.5-1*	.310	.440	.906	1.5	1313TF-3-1.5-1.6*	.360	.530	1.190
2.0	1313TF-3-2.0-0*	.270	.400	.781	2.0	1313TF-3-2.0-1*	.360	.490	.906	2.0	1313TF-3-2.0-1.6*	.430	.600	1.190
3.0	1313TF-3-3.0-0*	.320	.450	.781	3.0	1313TF-3-3.0-1*	.350	.520	1.190	3.0	1313TF-3-3.0-1.6*	.470	.640	1.440
4.0	1313TF-3-4.0-0*	.340	.470	.906	4.0	1313TF-3-4.0-1*	.420	.590	1.190	4.0	1313TF-3-4.0-1.6*	.550	.720	1.440
5.0	1313TF-3-5.0-0*	.390	.520	.906	5.0	1313TF-3-5.0-1*	.410	.580	1.440	5.0	1313TF-3-5.0-1.6*	.590	.760	1.570
6.0	1313TF-3-6.0-0*	.330	.500	1.190	6.0	1313TF-3-6.0-1*	.450	.620	1.440	6.0	1313TF-3-6.0-1.6*	.660	.830	1.570
10.0	1313TF-3-10.0-0*	.450	.620	1.190	10.0	1313TF-3-10.0-1*	.580	.750	1.570	10.0	1313TF-3-10.0-1.6*	.810	1.010	1.690
20.0	1313TF-3-20.0-0*	.590	.760	1.440	20.0	1313TF-3-20.0-1*	.790	.990	1.690	20.0	1313TF-3-20.0-1.6*	1.070	1.270	1.940

* - Please insert appropriate tolerance code



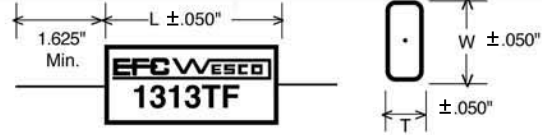
Please consult factory for special requirements, including non-standard values and sizes

1313TF Oval Wrap & Fill

Metallized Polyester Capacitors

Lead Spec.
Tinned Copperweld
Under .190T = 24 AWG
.190 - .380T = 22AWG
Above .380T = 20 AWG

Dimensions and Ratings



Cap.		200 VDC			
μF	Part #	T	W	L	
.001	1313TF-3-.001-2-*	.125	.225	.406	
.0012	1313TF-3-.0012-2-*	.125	.225	.406	
.0015	1313TF-3-.0015-2-*	.125	.225	.406	
.0018	1313TF-3-.0018-2-*	.125	.225	.406	
.0022	1313TF-3-.0022-2-*	.125	.225	.406	
.0027	1313TF-3-.0027-2-*	.125	.225	.406	
.0033	1313TF-3-.0033-2-*	.125	.225	.406	
.0039	1313TF-3-.0039-2-*	.125	.225	.406	
.0047	1313TF-3-.0047-2-*	.125	.225	.406	
.0056	1313TF-3-.0056-2-*	.125	.225	.406	
.0068	1313TF-3-.0068-2-*	.125	.225	.406	
.0082	1313TF-3-.0082-2-*	.125	.225	.406	
.01	1313TF-3-.01-2-*	.125	.225	.406	
.012	1313TF-3-.012-2-*	.125	.225	.406	
.015	1313TF-3-.015-2-*	.125	.225	.406	
.018	1313TF-3-.018-2-*	.125	.225	.406	
.022	1313TF-3-.022-2-*	.140	.240	.406	
.027	1313TF-3-.027-2-*	.160	.260	.406	
.033	1313TF-3-.033-2-*	.180	.280	.406	
.039	1313TF-3-.039-2-*	.130	.230	.531	
.047	1313TF-3-.047-2-*	.140	.240	.531	
.056	1313TF-3-.056-2-*	.150	.250	.531	
.068	1313TF-3-.068-2-*	.160	.260	.531	
.082	1313TF-3-.082-2-*	.190	.290	.531	
.1	1313TF-3-.1-2-*	.210	.310	.531	
.12	1313TF-3-.12-2-*	.230	.330	.531	
.15	1313TF-3-.15-2-*	.190	.290	.656	
.18	1313TF-3-.18-2-*	.230	.330	.656	
.22	1313TF-3-.22-2-*	.260	.360	.656	
.27	1313TF-3-.27-2-*	.220	.350	.781	
.33	1313TF-3-.33-2-*	.250	.380	.781	
.39	1313TF-3-.39-2-*	.280	.410	.781	
.47	1313TF-3-.47-2-*	.320	.450	.781	
.56	1313TF-3-.56-2-*	.320	.450	.906	
.68	1313TF-3-.68-2-*	.340	.470	.906	
.82	1313TF-3-.82-2-*	.370	.500	.906	
1.0	1313TF-3-1.0-2-*	.320	.490	1.190	
1.25	1313TF-3-1.25-2-*	.370	.540	1.190	
1.5	1313TF-3-1.5-2-*	.420	.590	1.190	
2.0	1313TF-3-2.0-2-*	.490	.660	1.190	
3.0	1313TF-3-3.0-2-*	.540	.710	1.440	
4.0	1313TF-3-4.0-2-*	.630	.800	1.440	
5.0	1313TF-3-5.0-2-*	.680	.850	1.570	
6.0	1313TF-3-6.0-2-*	.690	.890	1.690	
10.0	1313TF-3-10.0-2-*	.840	1.040	1.940	

Cap.		400 VDC			
μF	Part #	T	W	L	
.001	1313TF-3-.001-4-*	.125	.225	.406	
.0012	1313TF-3-.0012-4-*	.125	.225	.406	
.0015	1313TF-3-.0015-4-*	.125	.225	.406	
.0018	1313TF-3-.0018-4-*	.125	.225	.406	
.0022	1313TF-3-.0022-4-*	.125	.225	.406	
.0027	1313TF-3-.0027-4-*	.125	.225	.406	
.0033	1313TF-3-.0033-4-*	.125	.225	.406	
.0039	1313TF-3-.0039-4-*	.125	.225	.406	
.0047	1313TF-3-.0047-4-*	.125	.225	.406	
.0056	1313TF-3-.0056-4-*	.125	.225	.406	
.0068	1313TF-3-.0068-4-*	.125	.225	.406	
.0082	1313TF-3-.0082-4-*	.140	.240	.406	
.01	1313TF-3-.01-4-*	.160	.260	.406	
.012	1313TF-3-.012-4-*	.180	.280	.406	
.015	1313TF-3-.015-4-*	.130	.230	.531	
.018	1313TF-3-.018-4-*	.140	.240	.531	
.022	1313TF-3-.022-4-*	.160	.260	.531	
.027	1313TF-3-.027-4-*	.180	.280	.531	
.033	1313TF-3-.033-4-*	.200	.300	.531	
.039	1313TF-3-.039-4-*	.220	.320	.531	
.047	1313TF-3-.047-4-*	.190	.290	.656	
.056	1313TF-3-.056-4-*	.210	.310	.656	
.068	1313TF-3-.068-4-*	.230	.330	.656	
.082	1313TF-3-.082-4-*	.260	.360	.656	
.1	1313TF-3-.1-4-*	.230	.380	.781	
.12	1313TF-3-.12-4-*	.260	.390	.781	
.15	1313TF-3-.15-4-*	.290	.420	.781	
.18	1313TF-3-.18-4-*	.330	.460	.781	
.22	1313TF-3-.22-4-*	.320	.450	.906	
.27	1313TF-3-.27-4-*	.360	.490	.906	
.33	1313TF-3-.33-4-*	.410	.540	.906	
.39	1313TF-3-.39-4-*	.340	.510	1.190	
.47	1313TF-3-.47-4-*	.380	.550	1.190	
.56	1313TF-3-.56-4-*	.420	.590	1.190	
.68	1313TF-3-.68-4-*	.470	.640	1.190	
.82	1313TF-3-.82-4-*	.530	.700	1.190	
1.0	1313TF-3-1.0-4-*	.510	.680	1.440	
1.25	1313TF-3-1.25-4-*	.580	.750	1.440	
1.5	1313TF-3-1.5-4-*	.650	.820	1.440	
2.0	1313TF-3-2.0-4-*	.660	.860	1.690	
3.0	1313TF-3-3.0-4-*	.830	1.030	1.690	

Cap.		600 VDC			
μF	Part #	T	W	L	
.001	1313TF-3-.001-6-*	.125	.225	.406	
.0012	1313TF-3-.0012-6-*	.125	.225	.406	
.0015	1313TF-3-.0015-6-*	.125	.225	.406	
.0018	1313TF-3-.0018-6-*	.125	.225	.406	
.0022	1313TF-3-.0022-6-*	.125	.225	.406	
.0027	1313TF-3-.0027-6-*	.140	.240	.406	
.0033	1313TF-3-.0033-6-*	.160	.260	.406	
.0039	1313TF-3-.0039-6-*	.180	.280	.406	
.0047	1313TF-3-.0047-6-*	.130	.230	.531	
.0056	1313TF-3-.0056-6-*	.140	.240	.531	
.0068	1313TF-3-.0068-6-*	.150	.250	.531	
.0082	1313TF-3-.0082-6-*	.160	.260	.531	
.01	1313TF-3-.01-6-*	.180	.280	.531	
.012	1313TF-3-.012-6-*	.200	.300	.531	
.015	1313TF-3-.015-6-*	.230	.330	.531	
.018	1313TF-3-.018-6-*	.190	.290	.656	
.022	1313TF-3-.022-6-*	.220	.320	.656	
.027	1313TF-3-.027-6-*	.250	.350	.656	
.033	1313TF-3-.033-6-*	.280	.380	.656	
.039	1313TF-3-.039-6-*	.240	.370	.781	
.047	1313TF-3-.047-6-*	.270	.400	.781	
.056	1313TF-3-.056-6-*	.300	.430	.781	
.068	1313TF-3-.068-6-*	.330	.460	.781	
.082	1313TF-3-.082-6-*	.320	.450	.906	
.1	1313TF-3-.1-6-*	.360	.490	.906	
.12	1313TF-3-.12-6-*	.400	.530	.906	
.15	1313TF-3-.15-6-*	.350	.520	1.190	
.18	1313TF-3-.18-6-*	.390	.560	1.190	
.22	1313TF-3-.22-6-*	.440	.610	1.190	
.27	1313TF-3-.27-6-*	.490	.660	1.190	
.33	1313TF-3-.33-6-*	.470	.640	1.440	
.39	1313TF-3-.39-6-*	.530	.700	1.440	
.47	1313TF-3-.47-6-*	.590	.760	1.440	
.56	1313TF-3-.56-6-*	.610	.780	1.570	
.68	1313TF-3-.68-6-*	.690	.860	1.570	
.82	1313TF-3-.82-6-*	.670	.870	1.820	
1.0	1313TF-3-1.0-6-*	.750	.950	1.820	
1.25	1313TF-3-1.25-6-*	.840	1.040	1.820	
1.5	1313TF-3-1.5-6-*	.830	1.030	2.250	
2.0	1313TF-3-2.0-6-*	.990	1.190	2.250	

For 1000 VDC rated parts,
please consult factory.

* - Please insert appropriate tolerance code

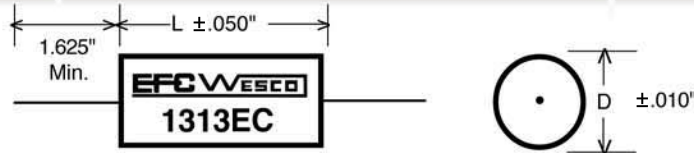


Please consult factory for special requirements, including non-standard values and sizes

1313EC
Tubular Plastic Case
(Axial Leads)

**Metallized
Polyester Capacitors**

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG



Dimensions and Ratings

50 VDC				100 VDC				160 VDC			
Cap.	Part #	D	L	Cap.	Part #	D	L	Cap.	Part #	D	L
.001	1313EC-3-.001-0-*	.187	.375	.001	1313EC-3-.001-1-*	.187	.375	.001	1313EC-3-.001-1.6*	.187	.375
.0012	1313EC-3-.0012-0-*	.187	.375	.0012	1313EC-3-.0012-1-*	.187	.375	.0012	1313EC-3-.0012-1.6*	.187	.375
.0015	1313EC-3-.0015-0-*	.187	.375	.0015	1313EC-3-.0015-1-*	.187	.375	.0015	1313EC-3-.0015-1.6*	.187	.375
.0018	1313EC-3-.0018-0-*	.187	.375	.0018	1313EC-3-.0018-1-*	.187	.375	.0018	1313EC-3-.0018-1.6*	.187	.375
.0022	1313EC-3-.0022-0-*	.187	.375	.0022	1313EC-3-.0022-1-*	.187	.375	.0022	1313EC-3-.0022-1.6*	.187	.375
.0027	1313EC-3-.0027-0-*	.187	.375	.0027	1313EC-3-.0027-1-*	.187	.375	.0027	1313EC-3-.0027-1.6*	.187	.375
.0033	1313EC-3-.0033-0-*	.187	.375	.0033	1313EC-3-.0033-1-*	.187	.375	.0033	1313EC-3-.0033-1.6*	.187	.375
.0039	1313EC-3-.0039-0-*	.187	.375	.0039	1313EC-3-.0039-1-*	.187	.375	.0039	1313EC-3-.0039-1.6*	.187	.375
.0047	1313EC-3-.0047-0-*	.187	.375	.0047	1313EC-3-.0047-1-*	.187	.375	.0047	1313EC-3-.0047-1.6*	.187	.375
.0056	1313EC-3-.0056-0-*	.187	.375	.0056	1313EC-3-.0056-1-*	.187	.375	.0056	1313EC-3-.0056-1.6*	.187	.375
.0068	1313EC-3-.0068-0-*	.187	.375	.0068	1313EC-3-.0068-1-*	.187	.375	.0068	1313EC-3-.0068-1.6*	.187	.375
.0082	1313EC-3-.0082-0-*	.187	.375	.0082	1313EC-3-.0082-1-*	.187	.375	.0082	1313EC-3-.0082-1.6*	.187	.375
.01	1313EC-3-.01-0-*	.187	.375	.01	1313EC-3-.01-1-*	.187	.375	.01	1313EC-3-.01-1.6*	.187	.375
.012	1313EC-3-.012-0-*	.187	.375	.012	1313EC-3-.012-1-*	.187	.375	.012	1313EC-3-.012-1.6*	.187	.375
.015	1313EC-3-.015-0-*	.187	.375	.015	1313EC-3-.015-1-*	.187	.375	.015	1313EC-3-.015-1.6*	.187	.375
.018	1313EC-3-.018-0-*	.187	.375	.018	1313EC-3-.018-1-*	.187	.375	.018	1313EC-3-.018-1.6*	.187	.375
.022	1313EC-3-.022-0-*	.187	.375	.022	1313EC-3-.022-1-*	.187	.375	.022	1313EC-3-.022-1.6*	.187	.375
.027	1313EC-3-.027-0-*	.187	.375	.027	1313EC-3-.027-1-*	.187	.375	.027	1313EC-3-.027-1.6*	.225	.375
.033	1313EC-3-.033-0-*	.187	.375	.033	1313EC-3-.033-1-*	.187	.375	.033	1313EC-3-.033-1.6*	.225	.375
.039	1313EC-3-.039-0-*	.187	.375	.039	1313EC-3-.039-1-*	.187	.375	.039	1313EC-3-.039-1.6*	.250	.375
.047	1313EC-3-.047-0-*	.187	.375	.047	1313EC-3-.047-1-*	.225	.375	.047	1313EC-3-.047-1.6*	.250	.375
.056	1313EC-3-.056-0-*	.187	.375	.056	1313EC-3-.056-1-*	.225	.375	.056	1313EC-3-.056-1.6*	.225	.500
.068	1313EC-3-.068-0-*	.187	.375	.068	1313EC-3-.068-1-*	.225	.375	.068	1313EC-3-.068-1.6*	.225	.500
.082	1313EC-3-.082-0-*	.187	.375	.082	1313EC-3-.082-1-*	.250	.375	.082	1313EC-3-.082-1.6*	.225	.500
.1	1313EC-3-.1-0-*	.187	.375	.1	1313EC-3-.1-1-*	.187	.500	.1	1313EC-3-.1-1.6*	.250	.500
.12	1313EC-3-.12-0-*	.187	.375	.12	1313EC-3-.12-1-*	.225	.500	.12	1313EC-3-.12-1.6*	.225	.625
.15	1313EC-3-.15-0-*	.225	.375	.15	1313EC-3-.15-1-*	.225	.500	.15	1313EC-3-.15-1.6*	.250	.625
.18	1313EC-3-.18-0-*	.250	.375	.18	1313EC-3-.18-1-*	.250	.500	.18	1313EC-3-.18-1.6*	.250	.625
.22	1313EC-3-.22-0-*	.187	.500	.22	1313EC-3-.22-1-*	.250	.500	.22	1313EC-3-.22-1.6*	.312	.625
.27	1313EC-3-.27-0-*	.225	.500	.27	1313EC-3-.27-1-*	.225	.625	.27	1313EC-3-.27-1.6*	.312	.625
.33	1313EC-3-.33-0-*	.225	.500	.33	1313EC-3-.33-1-*	.250	.625	.33	1313EC-3-.33-1.6*	.312	.750
.39	1313EC-3-.39-0-*	.250	.500	.39	1313EC-3-.39-1-*	.312	.625	.39	1313EC-3-.39-1.6*	.375	.750
.47	1313EC-3-.47-0-*	.225	.625	.47	1313EC-3-.47-1-*	.312	.625	.47	1313EC-3-.47-1.6*	.375	.750
.56	1313EC-3-.56-0-*	.250	.625	.56	1313EC-3-.56-1-*	.312	.750	.56	1313EC-3-.56-1.6*	.375	.750
.68	1313EC-3-.68-0-*	.250	.625	.68	1313EC-3-.68-1-*	.312	.750	.68	1313EC-3-.68-1.6*	.375	.875
.82	1313EC-3-.82-0-*	.312	.625	.82	1313EC-3-.82-1-*	.375	.750	.82	1313EC-3-.82-1.6*	.437	.875
1.0	1313EC-3-1.0-0-*	.312	.625	1.0	1313EC-3-1.0-1-*	.375	.750	1.0	1313EC-3-1.0-1.6*	.500	.875
1.25	1313EC-3-1.25-0-*	.312	.750	1.25	1313EC-3-1.25-1-*	.375	.875	1.25	1313EC-3-1.25-1.6*	.500	.875
1.5	1313EC-3-1.5-0-*	.312	.750	1.5	1313EC-3-1.5-1-*	.437	.875	1.5	1313EC-3-1.5-1.6*	.500	1.190

* - Please insert appropriate tolerance code

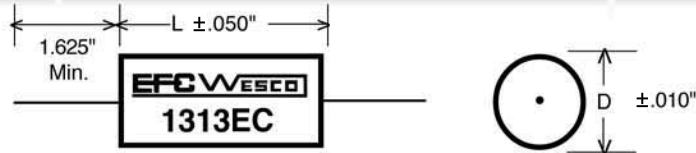


Please consult factory for special requirements, including non-standard values and sizes

1313EC
Tubular Plastic Case
(Axial Leads)

Metallized Polyester Capacitors

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG



Dimensions and Ratings

200 VDC				400 VDC			
Cap. µF	Part #	D	L	Cap. µF	Part #	D	L
.001	1313EC-3-.001-2-*	.187	.375	.001	1313EC-3-.001-4-*	.187	.375
.0012	1313EC-3-.0012-2-*	.187	.375	.0012	1313EC-3-.0012-4-*	.187	.375
.0015	1313EC-3-.0015-2-*	.187	.375	.0015	1313EC-3-.0015-4-*	.187	.375
.0018	1313EC-3-.0018-2-*	.187	.375	.0018	1313EC-3-.0018-4-*	.187	.375
.0022	1313EC-3-.0022-2-*	.187	.375	.0022	1313EC-3-.0022-4-*	.187	.375
.0027	1313EC-3-.0027-2-*	.187	.375	.0027	1313EC-3-.0027-4-*	.187	.375
.0033	1313EC-3-.0033-2-*	.187	.375	.0033	1313EC-3-.0033-4-*	.187	.375
.0039	1313EC-3-.0039-2-*	.187	.375	.0039	1313EC-3-.0039-4-*	.187	.375
.0047	1313EC-3-.0047-2-*	.187	.375	.0047	1313EC-3-.0047-4-*	.187	.375
.0056	1313EC-3-.0056-2-*	.187	.375	.0056	1313EC-3-.0056-4-*	.187	.375
.0068	1313EC-3-.0068-2-*	.187	.375	.0068	1313EC-3-.0068-4-*	.225	.375
.0082	1313EC-3-.0082-2-*	.187	.375	.0082	1313EC-3-.0082-4-*	.225	.375
.01	1313EC-3-.01-2-*	.187	.375	.01	1313EC-3-.01-4-*	.225	.375
.012	1313EC-3-.012-2-*	.187	.375	.012	1313EC-3-.012-4-*	.250	.375
.015	1313EC-3-.015-2-*	.187	.375	.015	1313EC-3-.015-4-*	.225	.500
.018	1313EC-3-.018-2-*	.225	.375	.018	1313EC-3-.018-4-*	.225	.500
.022	1313EC-3-.022-2-*	.225	.375	.022	1313EC-3-.022-4-*	.225	.500
.027	1313EC-3-.027-2-*	.225	.375	.027	1313EC-3-.027-4-*	.250	.500
.033	1313EC-3-.033-2-*	.250	.375	.033	1313EC-3-.033-4-*	.225	.625
.039	1313EC-3-.039-2-*	.187	.500	.039	1313EC-3-.039-4-*	.250	.625
.047	1313EC-3-.047-2-*	.225	.500	.047	1313EC-3-.047-4-*	.250	.625
.056	1313EC-3-.056-2-*	.225	.500	.056	1313EC-3-.056-4-*	.312	.625
.068	1313EC-3-.068-2-*	.250	.500	.068	1313EC-3-.068-4-*	.312	.625
.082	1313EC-3-.082-2-*	.250	.500	.082	1313EC-3-.082-4-*	.312	.750
.1	1313EC-3-.1-2-*	.225	.625	.1	1313EC-3-.1-4-*	.312	.750
.12	1313EC-3-.12-2-*	.250	.625	.12	1313EC-3-.12-4-*	.375	.750
.15	1313EC-3-.15-2-*	.312	.625	.15	1313EC-3-.15-4-*	.375	.750
.18	1313EC-3-.18-2-*	.312	.625	.18	1313EC-3-.18-4-*	.375	.875
.22	1313EC-3-.22-2-*	.312	.750	.22	1313EC-3-.22-4-*	.437	.875
.27	1313EC-3-.27-2-*	.312	.750	.27	1313EC-3-.27-4-*	.500	.875
.33	1313EC-3-.33-2-*	.375	.750	.33	1313EC-3-.33-4-*	.500	.875
.39	1313EC-3-.39-2-*	.375	.750	.39	1313EC-3-.39-4-*	.500	1.190
.47	1313EC-3-.47-2-*	.375	.875	.47	1313EC-3-.47-4-*	.500	1.190
.56	1313EC-3-.56-2-*	.437	.875				
.68	1313EC-3-.68-2-*	.437	.875				
.82	1313EC-3-.82-2-*	.500	.875				
1.0	1313EC-3-1.0-2-*	.437	1.190				
1.25	1313EC-3-1.25-2-*	.500	1.190				

* - Please insert appropriate tolerance code



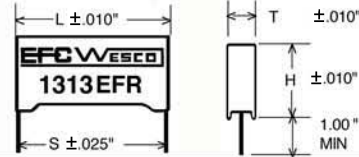
Please consult factory for special requirements, including non-standard values and sizes

1313EFR
Rectangular Plastic Case
(Radial Leads)

**Metallized
Polyester Capacitors**

**Lead Specs -
Tinned Copperweld**
B through E cases: 22 AWG
F through Q cases: 20 AWG

Dimensions and Ratings



63 VDC / 40 VAC						160 VDC / 100 VAC					
Cap.	Part #	T	L	H	S	Cap.	Part #	T	L	H	S
μF		in. (mm)	in. (mm)	in. (mm)	in. (mm)	μF		in. (mm)	in. (mm)	in. (mm)	in. (mm)
.001	1313EFR-B-.001-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.001	1313EFR-B-.001-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0012	1313EFR-B-.0012-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0012	1313EFR-B-.0012-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0015	1313EFR-B-.0015-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0015	1313EFR-B-.0015-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0018	1313EFR-B-.0018-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0018	1313EFR-B-.0018-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0022	1313EFR-B-.0022-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0022	1313EFR-B-.0022-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0027	1313EFR-B-.0027-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0027	1313EFR-B-.0027-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0033	1313EFR-B-.0033-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0033	1313EFR-B-.0033-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0039	1313EFR-B-.0039-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0039	1313EFR-B-.0039-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0047	1313EFR-B-.0047-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0047	1313EFR-B-.0047-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0056	1313EFR-B-.0056-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0056	1313EFR-B-.0056-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0068	1313EFR-B-.0068-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0068	1313EFR-B-.0068-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0082	1313EFR-B-.0082-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0082	1313EFR-B-.0082-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.01	1313EFR-B-.01-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.01	1313EFR-B-.01-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.012	1313EFR-B-.012-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.012	1313EFR-B-.012-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.015	1313EFR-B-.015-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.015	1313EFR-B-.015-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.018	1313EFR-B-.018-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.018	1313EFR-B-.018-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.022	1313EFR-B-.022-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.022	1313EFR-B-.022-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.027	1313EFR-B-.027-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.027	1313EFR-B-.027-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.033	1313EFR-B-.033-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.033	1313EFR-B-.033-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.039	1313EFR-B-.039-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.039	1313EFR-B-.039-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.047	1313EFR-B-.047-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.047	1313EFR-B-.047-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.056	1313EFR-B-.056-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.056	1313EFR-B-.056-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.068	1313EFR-B-.068-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.068	1313EFR-B-.068-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.082	1313EFR-B-.082-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.082	1313EFR-B-.082-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.1	1313EFR-B-.1-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.1	1313EFR-C-.1-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.12	1313EFR-B-.12-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.12	1313EFR-C-.12-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.15	1313EFR-B-.15-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.15	1313EFR-C-.15-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.18	1313EFR-C-.18-63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.18	1313EFR-D-.18-1.6-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.22	1313EFR-C-.22-63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.22	1313EFR-D-.22-1.6-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.27	1313EFR-C-.27-63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.27	1313EFR-D-.27-1.6-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.33	1313EFR-C-.33-63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.33	1313EFR-E-.33-1.6-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.39	1313EFR-D-.39-63-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)	.39	1313EFR-E-.39-1.6-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.47	1313EFR-D-.47-63-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)	.47	1313EFR-F-.47-1.6-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.56	1313EFR-E-.56-63-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)	.56	1313EFR-G-.56-1.6-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.68	1313EFR-E-.68-63-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)	.68	1313EFR-G-.68-1.6-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.82	1313EFR-F-.82-63-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)	.82	1313EFR-H-.82-1.6-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
1.0	1313EFR-F-1.0-63-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)	1.0	1313EFR-H-1.0-1.6-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
1.2	1313EFR-G-1.2-63-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)	1.2	1313EFR-H-1.2-1.6-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
1.5	1313EFR-G-1.5-63-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)	1.5	1313EFR-K-1.5-1.6-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
2.2	1313EFR-H-2.2-63-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)	1.5	1313EFR-M-1.5-1.6-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
3.3	1313EFR-K-3.3-63-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)	2.2	1313EFR-N-2.2-1.6-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
3.3	1313EFR-M-3.3-63-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)	3.3	1313EFR-O-3.3-1.6-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
4.7	1313EFR-N-4.7-63-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)	4.7	1313EFR-P-4.7-1.6-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
5.6	1313EFR-O-5.6-63-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)						

* - Please insert appropriate tolerance code



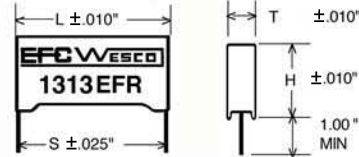
Please consult factory for special requirements, including non-standard values and sizes

1313EFR
Rectangular Plastic Case
(Radial Leads)

**Metallized
Polyester Capacitors**

**Lead Specs -
Tinned Copperweld**
B through E cases: 22 AWG
F through Q cases: 20 AWG

Dimensions and Ratings



250 VDC / 160 VAC					
Cap.	Part #	T	L	H	S
μF		in. (mm)	in. (mm)	in. (mm)	in. (mm)
.001	1313EFR-B-.001-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0012	1313EFR-B-.0012-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0015	1313EFR-B-.0015-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0018	1313EFR-B-.0018-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0022	1313EFR-B-.0022-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0027	1313EFR-B-.0027-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0033	1313EFR-B-.0033-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0039	1313EFR-B-.0039-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0047	1313EFR-B-.0047-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0056	1313EFR-B-.0056-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0068	1313EFR-B-.0068-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0082	1313EFR-B-.0082-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.01	1313EFR-B-.01-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.012	1313EFR-B-.012-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.015	1313EFR-B-.015-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.018	1313EFR-B-.018-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.022	1313EFR-B-.022-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.027	1313EFR-B-.027-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.033	1313EFR-B-.033-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.039	1313EFR-C-.039-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.047	1313EFR-C-.047-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.056	1313EFR-C-.056-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.068	1313EFR-C-.068-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.082	1313EFR-D-.082-2.5-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.1	1313EFR-D-.1-2.5-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.12	1313EFR-D-.12-2.5-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.15	1313EFR-E-.15-2.5-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.18	1313EFR-E-.18-2.5-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.22	1313EFR-F-.22-2.5-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.27	1313EFR-F-.27-2.5-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.33	1313EFR-G-.33-2.5-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.39	1313EFR-G-.39-2.5-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.47	1313EFR-H-.47-2.5-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.56	1313EFR-H-.56-2.5-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.68	1313EFR-J-.68-2.5-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.68	1313EFR-L-.68-2.5-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.82	1313EFR-K-.82-2.5-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.82	1313EFR-M-.82-2.5-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
1.0	1313EFR-N-1.0-2.5-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
1.2	1313EFR-N-1.2-2.5-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
1.5	1313EFR-P-1.5-2.5-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
2.2	1313EFR-P-2.2-2.5-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
3.3	1313EFR-Q-3.3-2.5-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)

400 VDC / 220 VAC					
Cap.	Part #	T	L	H	S
μF		in. (mm)	in. (mm)	in. (mm)	in. (mm)
.001	1313EFR-B-.001-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0012	1313EFR-B-.0012-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0015	1313EFR-B-.0015-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0018	1313EFR-B-.0018-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0022	1313EFR-B-.0022-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0027	1313EFR-B-.0027-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0033	1313EFR-B-.0033-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0039	1313EFR-B-.0039-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0047	1313EFR-B-.0047-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0056	1313EFR-B-.0056-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0068	1313EFR-B-.0068-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0082	1313EFR-B-.0082-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.01	1313EFR-B-.01-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.012	1313EFR-B-.012-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.015	1313EFR-C-.015-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.018	1313EFR-C-.018-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.022	1313EFR-C-.022-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.027	1313EFR-C-.027-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.033	1313EFR-D-.033-4-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.039	1313EFR-D-.039-4-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.047	1313EFR-D-.047-4-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.056	1313EFR-E-.056-4-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.068	1313EFR-E-.068-4-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.082	1313EFR-F-.082-4-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.1	1313EFR-F-.1-4-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.12	1313EFR-G-.12-4-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.15	1313EFR-H-.15-4-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.18	1313EFR-H-.18-4-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.22	1313EFR-J-.22-4-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.22	1313EFR-L-.22-4-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.27	1313EFR-K-.27-4-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.27	1313EFR-M-.27-4-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.33	1313EFR-K-.33-4-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.33	1313EFR-M-.33-4-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.39	1313EFR-K-.39-4-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.39	1313EFR-M-.39-4-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.47	1313EFR-N-.47-4-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.56	1313EFR-O-.56-4-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.68	1313EFR-O-.68-4-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.82	1313EFR-P-.82-4-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
1.0	1313EFR-P-1.0-4-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
1.2	1313EFR-Q-1.2-4-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)

* - Please insert appropriate tolerance code



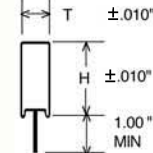
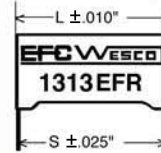
Please consult factory for special requirements, including non-standard values and sizes

1313EFR
Rectangular Plastic Case
(Radial Leads)

**Metallized
Polyester Capacitors**

**Lead Specs -
Tinned Copperweld**
B through E cases: 22 AWG
F through Q cases: 20 AWG

Dimensions and Ratings



Cap.	630 VDC / 250 VAC				
μF	Part #	T in. (mm)	L in. (mm)	H in. (mm)	S in. (mm)
.001	1313EFR-C-.001-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0012	1313EFR-C-.0012-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0015	1313EFR-C-.0015-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0018	1313EFR-C-.0018-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0022	1313EFR-C-.0022-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0027	1313EFR-C-.0027-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0033	1313EFR-C-.0033-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0039	1313EFR-C-.0039-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0047	1313EFR-C-.0047-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0056	1313EFR-C-.0056-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0068	1313EFR-C-.0068-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0082	1313EFR-C-.0082-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.01	1313EFR-C-.01-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.012	1313EFR-D-.012-6.3-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.015	1313EFR-D-.015-6.3-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.018	1313EFR-E-.018-6.3-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.022	1313EFR-E-.022-6.3-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.027	1313EFR-F-.027-6.3-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.033	1313EFR-F-.033-6.3-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.039	1313EFR-G-.039-6.3-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.047	1313EFR-G-.047-6.3-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.056	1313EFR-H-.056-6.3-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.068	1313EFR-H-.068-6.3-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.082	1313EFR-H-.082-6.3-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.1	1313EFR-J-.1-6.3-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.1	1313EFR-L-.1-6.3-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.12	1313EFR-J-.12-6.3-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.12	1313EFR-L-.12-6.3-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.15	1313EFR-J-.15-6.3-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.15	1313EFR-L-.15-6.3-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.18	1313EFR-K-.18-6.3-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.18	1313EFR-M-.18-6.3-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.22	1313EFR-N-.22-6.3-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.27	1313EFR-O-.27-6.3-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.33	1313EFR-P-.33-6.3-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.39	1313EFR-P-.39-6.3-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.47	1313EFR-Q-.47-6.3-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)
.56	1313EFR-Q-.56-6.3-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)

* - Please insert appropriate tolerance code



Please consult factory for special requirements, including non-standard values and sizes

1313DFR

Epoxy Dipped (Radial Leads)

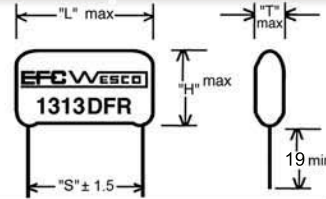
Standard Metallized Polyester Capacitors

Lead Specs - Tinned Copperweld

L	S	LEAD DIA
10.5	7.5	0.6
12.5	10.0	0.6
18.0	15.0	0.8
26.0	22.5	0.8
31.0	27.5	0.8
44.0	38.0	1.0

Dimensions and Ratings

All dimensions in mm



100 VDC					160 VDC				
Cap. μ F	Part #	T	H	L	Cap. μ F	Part #	T	H	L
.001	1313DFR-3-.001-1-*	4.0	8.0	10.0	.001	1313DFR-3-.001-1.6-*	4.0	8.0	10.0
.0012	1313DFR-3-.0012-1-*	4.0	8.0	10.0	.0012	1313DFR-3-.0012-1.6-*	4.0	8.0	10.0
.0015	1313DFR-3-.0015-1-*	4.0	8.0	10.0	.0015	1313DFR-3-.0015-1.6-*	4.0	8.0	10.0
.0022	1313DFR-3-.0022-1-*	4.0	8.0	10.0	.0022	1313DFR-3-.0022-1.6-*	4.0	8.0	10.0
.0027	1313DFR-3-.0027-1-*	4.0	8.0	10.0	.0027	1313DFR-3-.0027-1.6-*	4.0	8.0	10.0
.0039	1313DFR-3-.0039-1-*	4.0	8.0	10.0	.0039	1313DFR-3-.0039-1.6-*	4.0	8.0	10.0
.0047	1313DFR-3-.0047-1-*	4.0	8.0	10.0	.0047	1313DFR-3-.0047-1.6-*	4.0	8.0	10.0
.0056	1313DFR-3-.0056-1-*	4.0	8.0	10.0	.0056	1313DFR-3-.0056-1.6-*	4.0	8.0	10.0
.0068	1313DFR-3-.0068-1-*	4.0	8.0	10.0	.0068	1313DFR-3-.0068-1.6-*	4.0	8.0	10.0
.0082	1313DFR-3-.0082-1-*	4.0	8.0	10.0	.0082	1313DFR-3-.0082-1.6-*	4.0	8.0	10.0
.01	1313DFR-3-.01-1-*	4.0	8.0	10.0	.01	1313DFR-3-.01-1.6-*	4.0	8.0	10.0
.012	1313DFR-3-.012-1-*	4.0	8.0	10.0	.012	1313DFR-3-.012-1.6-*	4.0	8.0	10.0
.015	1313DFR-3-.015-1-*	4.0	8.0	10.0	.015	1313DFR-3-.015-1.6-*	4.0	8.0	10.0
.018	1313DFR-3-.018-1-*	4.0	8.0	10.0	.018	1313DFR-3-.018-1.6-*	4.0	8.0	10.0
.022	1313DFR-3-.022-1-*	4.0	8.0	10.0	.022	1313DFR-3-.022-1.6-*	4.0	8.0	10.0
.027	1313DFR-3-.027-1-*	4.0	8.0	10.0	.027	1313DFR-3-.027-1.6-*	4.0	8.0	10.0
.033	1313DFR-3-.033-1-*	4.0	8.0	10.0	.033	1313DFR-3-.033-1.6-*	4.0	8.0	10.0
.039	1313DFR-3-.039-1-*	4.0	8.0	10.0	.039	1313DFR-3-.039-1.6-*	4.0	8.0	10.0
.047	1313DFR-3-.047-1-*	4.0	8.0	10.0	.047	1313DFR-3-.047-1.6-*	4.0	8.0	10.0
.056	1313DFR-3-.056-1-*	4.0	8.0	10.0	.056	1313DFR-3-.056-1.6-*	4.0	8.0	10.0
.068	1313DFR-3-.068-1-*	4.0	8.0	10.0	.068	1313DFR-3-.068-1.6-*	4.0	8.0	10.0
.082	1313DFR-3-.082-1-*	4.0	8.0	10.0	.082	1313DFR-3-.082-1.6-*	4.0	8.5	10.0
.1	1313DFR-3-.1-1-*	4.0	8.0	10.0	.1	1313DFR-3-.1-1.6-*	4.0	9.0	10.0
.12	1313DFR-3-.12-1-*	4.0	8.0	10.0	.12	1313DFR-3-.12-1.6-*	5.5	11.0	12.5
.15	1313DFR-3-.15-1-*	4.0	8.0	10.0	.15	1313DFR-3-.15-1.6-*	4.5	9.0	12.5
.18	1313DFR-3-.18-1-*	4.0	8.5	10.0	.18	1313DFR-3-.18-1.6-*	4.5	9.5	12.5
.22	1313DFR-3-.22-1-*	4.0	8.5	10.0	.22	1313DFR-3-.22-1.6-*	5.0	10.0	12.5
.27	1313DFR-3-.27-1-*	4.0	8.5	10.0	.27	1313DFR-3-.27-1.6-*	5.5	11.0	12.5
.33	1313DFR-3-.33-1-*	4.0	9.0	10.0	.33	1313DFR-3-.33-1.6-*	6.0	12.0	12.5
.39	1313DFR-3-.39-1-*	4.0	9.0	12.5	.39	1313DFR-3-.39-1.6-*	5.0	10.0	18.0
.47	1313DFR-3-.47-1-*	4.5	9.5	12.5	.47	1313DFR-3-.47-1.6-*	5.5	11.0	0.2
.56	1313DFR-3-.56-1-*	5.0	10.0	12.5	.56	1313DFR-3-.56-1.6-*	6.0	12.0	18.0
.68	1313DFR-3-.68-1-*	5.5	10.5	12.5	.68	1313DFR-3-.68-1.6-*	7.0	13.0	18.0
.82	1313DFR-3-.82-1-*	6.0	11.5	12.5	.82	1313DFR-3-.82-1.6-*	7.5	13.5	18.0
1.0	1313DFR-3-1.0-1-*	6.5	12.0	12.5	1.0	1313DFR-3-1.0-1.6-*	8.0	14.0	18.0
1.2	1313DFR-3-1.2-1-*	6.0	12.0	18.0	1.2	1313DFR-3-1.2-1.6-*	7.5	13.5	26.0
1.5	1313DFR-3-1.5-1-*	6.5	12.5	18.0	1.5	1313DFR-3-1.5-1.6-*	8.0	14.0	26.0
1.8	1313DFR-3-1.8-1-*	7.0	13.0	18.0	1.8	1313DFR-3-1.8-1.6-*	8.5	15.5	26.0
2.2	1313DFR-3-2.2-1-*	7.5	13.5	18.0	2.2	1313DFR-3-2.2-1.6-*	9.0	17.0	26.0
2.7	1313DFR-3-2.7-1-*	7.0	13.0	26.0	2.7	1313DFR-3-2.7-1.6-*	9.5	18.0	26.0
3.3	1313DFR-3-3.3-1-*	7.5	13.5	26.0	3.3	1313DFR-3-3.3-1.6-*	10.5	20.0	26.0
3.9	1313DFR-3-3.9-1-*	8.0	14.5	26.0	3.9	1313DFR-3-3.9-1.6-*	10.0	19.0	31.0
4.7	1313DFR-3-4.7-1-*	8.5	16.0	26.0	4.7	1313DFR-3-4.7-1.6-*	11.0	21.0	31.0
5.6	1313DFR-3-5.6-1-*	9.0	17.0	26.0	5.6	1313DFR-3-5.6-1.6-*	12.0	22.0	31.0
6.8	1313DFR-3-6.8-1-*	9.5	18.0	26.0	6.8	1313DFR-3-6.8-1.6-*	13.0	24.0	31.0

* - Please insert appropriate tolerance code



Please consult factory for special requirements, including non-standard values and sizes

1313DFR

Epoxy Dipped (Radial Leads)

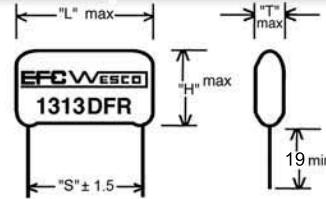
Standard Metallized Polyester Capacitors

Lead Specs - Tinned Copperweld

L	S	LEAD DIA
10.5	7.5	0.6
12.5	10.0	0.6
18.0	15.0	0.8
26.0	22.5	0.8
31.0	27.5	0.8
44.0	38.0	1.0

Dimensions and Ratings

All dimensions in mm



Cap.	250 VDC			
	μF	Part #	T	H
.001	1313DFR-3-.001-2.5-*	4.0	8.0	10.0
.0012	1313DFR-3-.0012-2.5-*	4.0	8.0	10.0
.0015	1313DFR-3-.0015-2.5-*	4.0	8.0	10.0
.0022	1313DFR-3-.0022-2.5-*	4.0	8.0	10.0
.0027	1313DFR-3-.0027-2.5-*	4.0	8.0	10.0
.0039	1313DFR-3-.0039-2.5-*	4.0	8.0	10.0
.0047	1313DFR-3-.0047-2.5-*	4.0	8.0	10.0
.0056	1313DFR-3-.0056-2.5-*	4.0	8.0	10.0
.0068	1313DFR-3-.0068-2.5-*	4.0	8.0	10.0
.0082	1313DFR-3-.0082-2.5-*	4.0	8.0	10.0
.01	1313DFR-3-.01-2.5-*	4.0	8.0	10.0
.012	1313DFR-3-.012-2.5-*	4.0	8.0	10.0
.015	1313DFR-3-.015-2.5-*	4.0	8.0	10.0
.018	1313DFR-3-.018-2.5-*	4.0	8.0	10.0
.022	1313DFR-3-.022-2.5-*	4.0	8.0	10.0
.027	1313DFR-3-.027-2.5-*	4.0	8.0	10.0
.033	1313DFR-3-.033-2.5-*	4.0	8.5	10.0
.039	1313DFR-3-.039-2.5-*	4.0	9.0	10.0
.047	1313DFR-3-.047-2.5-*	4.5	9.0	10.0
.056	1313DFR-3-.056-2.5-*	4.0	9.0	12.5
.068	1313DFR-3-.068-2.5-*	4.5	9.0	12.5
.082	1313DFR-3-.082-2.5-*	4.5	9.5	12.5
.1	1313DFR-3-.1-2.5-*	5.0	10.0	12.5
.12	1313DFR-3-.12-2.5-*	5.5	11.0	12.5
.15	1313DFR-3-.15-2.5-*	6.5	12.0	12.5
.18	1313DFR-3-.18-2.5-*	5.0	10.0	18.0
.22	1313DFR-3-.22-2.5-*	5.5	11.0	18.0
.27	1313DFR-3-.27-2.5-*	6.0	12.0	18.0
.33	1313DFR-3-.33-2.5-*	6.5	12.5	18.0
.39	1313DFR-3-.39-2.5-*	7.0	13.0	18.0
.47	1313DFR-3-.47-2.5-*	7.5	13.5	18.0
.56	1313DFR-3-.56-2.5-*	7.0	13.0	26.0
.68	1313DFR-3-.68-2.5-*	8.0	14.0	26.0
.82	1313DFR-3-.82-2.5-*	8.5	15.5	26.0
1.0	1313DFR-3-1.0-2.5-*	9.0	16.5	26.0
1.2	1313DFR-3-1.2-2.5-*	9.5	17.0	26.0
1.5	1313DFR-3-1.5-2.5-*	10.0	19.0	26.0
1.8	1313DFR-3-1.8-2.5-*	9.5	17.0	31.0
2.2	1313DFR-3-2.2-2.5-*	10.0	19.0	31.0
2.7	1313DFR-3-2.7-2.5-*	11.5	21.0	31.0
3.3	1313DFR-3-3.3-2.5-*	15.0	26.0	31.0
3.9	1313DFR-3-3.9-2.5-*	13.5	25.0	31.0
4.7	1313DFR-3-4.7-2.5-*	15.0	26.0	31.0
5.6	1313DFR-3-5.6-2.5-*	14.5	25.0	44.0
6.8	1313DFR-3-6.8-2.5-*	16.0	30.0	44.0

Cap.	400 VDC			
	μF	Part #	T	H
.001	1313DFR-3-.001-4-*	4.0	8.0	10.0
.0012	1313DFR-3-.0012-4-*	4.0	8.0	10.0
.0015	1313DFR-3-.0015-4-*	4.0	8.0	10.0
.0022	1313DFR-3-.0022-4-*	4.0	8.0	10.0
.0027	1313DFR-3-.0027-4-*	4.0	8.0	10.0
.0039	1313DFR-3-.0039-4-*	4.0	8.0	10.0
.0047	1313DFR-3-.0047-4-*	4.0	8.0	10.0
.0056	1313DFR-3-.0056-4-*	4.0	8.0	10.0
.0068	1313DFR-3-.0068-4-*	4.0	8.0	10.0
.0082	1313DFR-3-.0082-4-*	4.0	8.0	10.0
.01	1313DFR-3-.01-4-*	4.0	8.0	10.0
.012	1313DFR-3-.012-4-*	4.0	8.5	10.0
.015	1313DFR-3-.015-4-*	4.5	9.0	10.0
.018	1313DFR-3-.018-4-*	4.0	9.0	12.5
.022	1313DFR-3-.022-4-*	4.5	9.0	12.5
.027	1313DFR-3-.027-4-*	4.5	9.5	12.5
.033	1313DFR-3-.033-4-*	5.0	10.0	12.5
.039	1313DFR-3-.039-4-*	6.0	11.0	12.5
.047	1313DFR-3-.047-4-*	6.5	12.0	12.5
.056	1313DFR-3-.056-4-*	5.0	10.0	18.0
.068	1313DFR-3-.068-4-*	5.5	11.0	18.0
.082	1313DFR-3-.082-4-*	5.5	11.5	18.0
.1	1313DFR-3-.1-4-*	6.5	12.5	18.0
.12	1313DFR-3-.12-4-*	7.0	13.0	18.0
.15	1313DFR-3-.15-4-*	7.5	13.5	18.0
.18	1313DFR-3-.18-4-*	6.5	12.5	26.0
.22	1313DFR-3-.22-4-*	7.0	13.0	26.0
.27	1313DFR-3-.27-4-*	8.0	14.5	26.0
.33	1313DFR-3-.33-4-*	8.5	16.0	26.0
.39	1313DFR-3-.39-4-*	9.0	17.0	26.0
.47	1313DFR-3-.47-4-*	9.5	18.0	26.0
.56	1313DFR-3-.56-4-*	10.0	19.0	31.0
.68	1313DFR-3-.68-4-*	10.5	20.0	31.0
.82	1313DFR-3-.82-4-*	11.5	22.0	31.0
1.0	1313DFR-3-1.0-4-*	13.0	24.0	31.0
1.2	1313DFR-3-1.2-4-*	14.0	25.5	31.0
1.5	1313DFR-3-1.5-4-*	15.5	27.0	31.0
1.8	1313DFR-3-1.8-4-*	16.5	30.3	31.0
2.2	1313DFR-3-2.2-4-*	17.0	32.0	31.0
2.7	1313DFR-3-2.7-4-*	15.5	28.0	44.0
3.3	1313DFR-3-3.3-4-*	17.0	32.0	44.0
3.9	1313DFR-3-3.9-4-*	18.0	33.0	44.0
4.7	1313DFR-3-4.7-4-*	20.0	35.0	44.0

* - Please insert appropriate tolerance code



Please consult factory for special requirements, including non-standard values and sizes

1313DFR

Epoxy Dipped (Radial Leads)

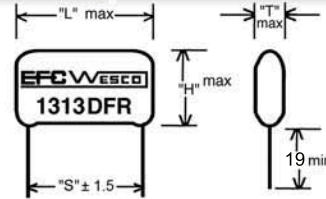
Standard Metallized Polyester Capacitors

Lead Specs - Tinned Copperweld

L	S	LEAD DIA
10.5	7.5	0.6
12.5	10.0	0.6
18.0	15.0	0.8
26.0	22.5	0.8
31.0	27.5	0.8
44.0	38.0	1.0

Dimensions and Ratings

All dimensions in mm



Cap.	630 VDC				
μF	Part #	T	H	L	
.001	1313DFR-3-.001-6.3-*	4.0	8.0	10.0	
.0012	1313DFR-3-.0012-6.3-*	4.0	8.0	10.0	
.0015	1313DFR-3-.0015-6.3-*	4.0	8.0	10.0	
.0022	1313DFR-3-.0022-6.3-*	4.0	8.0	10.0	
.0027	1313DFR-3-.0027-6.3-*	4.0	8.0	10.0	
.0039	1313DFR-3-.0039-6.3-*	4.0	8.0	10.0	
.0047	1313DFR-3-.0047-6.3-*	4.0	8.0	10.0	
.0056	1313DFR-3-.0056-6.3-*	4.0	9.0	10.0	
.0068	1313DFR-3-.0068-6.3-*	4.0	9.0	12.5	
.0082	1313DFR-3-.0082-6.3-*	4.5	9.0	12.5	
.01	1313DFR-3-.01-6.3-*	4.5	9.0	12.5	
.012	1313DFR-3-.012-6.3-*	5.0	10.0	12.5	
.015	1313DFR-3-.015-6.3-*	5.5	11.0	12.5	
.018	1313DFR-3-.018-6.3-*	6.0	11.5	12.5	
.022	1313DFR-3-.022-6.3-*	6.0	12.0	12.5	
.027	1313DFR-3-.027-6.3-*	5.0	10.0	18.0	
.033	1313DFR-3-.033-6.3-*	5.5	11.0	18.0	
.039	1313DFR-3-.039-6.3-*	6.0	11.5	18.0	
.047	1313DFR-3-.047-6.3-*	6.0	12.0	18.0	
.056	1313DFR-3-.056-6.3-*	6.5	12.5	18.0	
.068	1313DFR-3-.068-6.3-*	7.0	13.0	18.0	
.082	1313DFR-3-.082-6.3-*	7.5	13.5	18.0	
.1	1313DFR-3-.1-6.3-*	7.0	13.0	26.0	
.12	1313DFR-3-.12-6.3-*	8.0	14.0	26.0	
.15	1313DFR-3-.15-6.3-*	8.5	15.0	26.0	
.18	1313DFR-3-.18-6.3-*	9.0	17.0	26.0	
.22	1313DFR-3-.22-6.3-*	10.0	19.0	26.0	
.27	1313DFR-3-.27-6.3-*	9.5	17.0	31.0	
.33	1313DFR-3-.33-6.3-*	10.0	19.0	31.0	
.39	1313DFR-3-.39-6.3-*	11.0	20.5	31.0	
.47	1313DFR-3-.47-6.3-*	12.0	22.0	31.0	
.56	1313DFR-3-.56-6.3-*	13.0	23.0	31.0	
.68	1313DFR-3-.68-6.3-*	13.5	25.0	31.0	
.82	1313DFR-3-.82-6.3-*	14.5	27.0	31.0	
1.0	1313DFR-3-1.0-6.3-*	16.5	30.0	31.0	
1.2	1313DFR-3-1.2-6.3-*	15.0	27.0	44.0	
1.5	1313DFR-3-1.5-6.3-*	16.5	30.0	44.0	
1.8	1313DFR-3-1.8-6.3-*	18.0	33.0	44.0	
2.2	1313DFR-3-2.2-6.3-*	20.5	36.0	44.0	

Cap.	1000 VDC				
μF	Part #	T	H	L	
.001	1313DFR-3-.001-10-*	4.0	8.0	12.5	
.0012	1313DFR-3-.0012-10-*	4.0	8.5	12.5	
.0015	1313DFR-3-.0015-10-*	4.0	9.0	12.5	
.0022	1313DFR-3-.0022-10-*	4.5	9.0	12.5	
.0027	1313DFR-3-.0027-10-*	4.5	9.0	12.5	
.0039	1313DFR-3-.0039-10-*	4.5	9.0	12.5	
.0047	1313DFR-3-.0047-10-*	4.5	9.5	12.5	
.0056	1313DFR-3-.0056-10-*	4.5	9.5	12.5	
.0068	1313DFR-3-.0068-10-*	5.0	10.0	12.5	
.0082	1313DFR-3-.0082-10-*	5.0	10.0	12.5	
.01	1313DFR-3-.01-10-*	5.5	11.0	12.5	
.012	1313DFR-3-.012-10-*	6.0	12.0	12.5	
.015	1313DFR-3-.015-10-*	5.0	10.0	18.0	
.018	1313DFR-3-.018-10-*	5.5	11.0	18.0	
.022	1313DFR-3-.022-10-*	6.0	12.0	18.0	
.027	1313DFR-3-.027-10-*	6.5	12.5	18.0	
.033	1313DFR-3-.033-10-*	7.0	13.0	18.0	
.039	1313DFR-3-.039-10-*	7.5	13.5	18.0	
.047	1313DFR-3-.047-10-*	7.0	13.0	26.0	
.056	1313DFR-3-.056-10-*	8.0	15.0	26.0	
.068	1313DFR-3-.068-10-*	8.5	16.0	26.0	
.082	1313DFR-3-.082-10-*	9.0	16.5	26.0	
.1	1313DFR-3-.1-10-*	9.5	18.0	26.0	
.12	1313DFR-3-.12-10-*	9.0	16.5	31.0	
.15	1313DFR-3-.15-10-*	10.0	19.0	31.0	
.18	1313DFR-3-.18-10-*	10.5	20.0	31.0	
.22	1313DFR-3-.22-10-*	11.5	21.0	31.0	
.27	1313DFR-3-.27-10-*	12.5	23.0	31.0	
.33	1313DFR-3-.33-10-*	13.5	25.0	31.0	
.39	1313DFR-3-.39-10-*	14.5	27.0	31.0	
.47	1313DFR-3-.47-10-*	16.5	30.0	31.0	
.56	1313DFR-3-.56-10-*	15.0	27.0	44.0	
.68	1313DFR-3-.68-10-*	16.5	30.0	44.0	
.82	1313DFR-3-.82-10-*	17.0	32.0	44.0	
1.0	1313DFR-3-1.0-10-*	20.0	35.0	44.0	

* - Please insert appropriate tolerance code



Please consult factory for special requirements, including non-standard values and sizes

1313DFR Epoxy Dipped (Radial Leads)

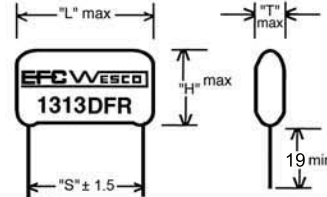
Miniature Metallized Polyester Capacitors

Lead Specs -
Tinned Copperweld

L	S	DIA
7.5	5.0	0.5
10.0	7.5	0.6
12.5	10.0	0.6
18.5	15.0	0.8
26.0	22.5	0.8
31.0	27.5	0.8

Dimensions and Ratings

All dimensions in mm



63 VDC					100 VDC					250 VDC				
Cap.	Part #	T	H	L	Cap.	Part #	T	H	L	Cap.	Part #	T	H	L
.001	1313DFR-2-001-63-*	3.5	6.5	7.5	.001	1313DFR-2-001-1-*	3.5	6.5	7.5	.001	1313DFR-2-001-2.5-*	4.0	7.0	10.0
.0012	1313DFR-2-0012-63-*	3.5	6.5	7.5	.0012	1313DFR-2-0012-1-*	3.5	6.5	7.5	.0012	1313DFR-2-0012-2.5-*	4.0	7.0	10.0
.0015	1313DFR-2-0015-63-*	3.5	6.5	7.5	.0015	1313DFR-2-0015-1-*	3.5	6.5	7.5	.0015	1313DFR-2-0015-2.5-*	4.0	7.0	10.0
.0022	1313DFR-2-0022-63-*	3.5	6.5	7.5	.0022	1313DFR-2-0022-1-*	3.5	6.5	7.5	.0022	1313DFR-2-0022-2.5-*	4.0	7.0	10.0
.0027	1313DFR-2-0027-63-*	3.5	6.5	7.5	.0027	1313DFR-2-0027-1-*	4.0	7.0	7.5	.0027	1313DFR-2-0027-2.5-*	4.0	7.5	10.0
.0039	1313DFR-2-0039-63-*	3.5	6.5	7.5	.0039	1313DFR-2-0039-1-*	4.0	7.0	7.5	.0039	1313DFR-2-0039-2.5-*	4.0	7.5	10.0
.0047	1313DFR-2-0047-63-*	3.5	6.5	7.5	.0047	1313DFR-2-0047-1-*	4.0	7.0	7.5	.0047	1313DFR-2-0047-2.5-*	4.0	7.5	10.0
.0056	1313DFR-2-0056-63-*	3.5	6.5	7.5	.0056	1313DFR-2-0056-1-*	4.0	7.0	7.5	.0056	1313DFR-2-0056-2.5-*	4.0	7.5	10.0
.0068	1313DFR-2-0068-63-*	3.5	6.5	7.5	.0068	1313DFR-2-0068-1-*	4.0	7.0	7.5	.0068	1313DFR-2-0068-2.5-*	4.0	7.5	10.0
.0082	1313DFR-2-0082-63-*	3.5	6.5	7.5	.0082	1313DFR-2-0082-1-*	4.0	7.0	7.5	.0082	1313DFR-2-0082-2.5-*	4.0	7.5	10.0
.01	1313DFR-2-01-63-*	3.5	6.5	7.5	.01	1313DFR-2-01-1-*	4.0	7.5	7.5	.01	1313DFR-2-01-2.5-*	4.0	7.5	10.0
.012	1313DFR-2-012-63-*	3.5	6.5	7.5	.012	1313DFR-2-012-1-*	4.0	7.5	7.5	.012	1313DFR-2-012-2.5-*	4.0	7.5	10.0
.015	1313DFR-2-015-63-*	3.5	6.5	7.5	.015	1313DFR-2-015-1-*	4.0	7.5	7.5	.015	1313DFR-2-015-2.5-*	4.5	7.5	10.0
.018	1313DFR-2-018-63-*	3.5	6.5	7.5	.018	1313DFR-2-018-1-*	4.0	7.5	7.5	.018	1313DFR-2-018-2.5-*	4.5	7.5	10.0
.022	1313DFR-2-022-63-*	3.5	6.5	7.5	.022	1313DFR-2-022-1-*	4.0	7.5	7.5	.022	1313DFR-2-022-2.5-*	4.5	7.5	10.0
.027	1313DFR-2-027-63-*	3.5	6.5	7.5	.027	1313DFR-2-027-1-*	4.0	7.5	7.5	.027	1313DFR-2-027-2.5-*	4.5	7.5	10.0
.033	1313DFR-2-033-63-*	3.5	6.5	7.5	.033	1313DFR-2-033-1-*	4.0	7.5	7.5	.033	1313DFR-2-033-2.5-*	4.5	7.5	10.0
.039	1313DFR-2-039-63-*	3.5	6.5	7.5	.039	1313DFR-2-039-1-*	4.5	7.5	7.5	.039	1313DFR-2-039-2.5-*	4.5	7.5	10.0
.047	1313DFR-2-047-63-*	3.5	6.5	7.5	.047	1313DFR-2-047-1-*	4.5	7.5	7.5	.047	1313DFR-2-047-2.5-*	4.5	7.5	10.0
.056	1313DFR-2-056-63-*	3.5	6.5	7.5	.056	1313DFR-2-056-1-*	4.5	8.0	7.5	.056	1313DFR-2-056-2.5-*	4.5	8.0	10.0
.068	1313DFR-2-068-63-*	3.5	6.5	7.5	.068	1313DFR-2-068-1-*	5.0	8.5	7.5	.068	1313DFR-2-068-2.5-*	4.5	8.0	10.0
.082	1313DFR-2-082-63-*	3.5	7.0	7.5	.082	1313DFR-2-082-1-*	5.0	9.5	7.5	.082	1313DFR-2-082-2.5-*	5.0	8.5	10.0
.1	1313DFR-2-1-63-*	4.0	7.0	7.5	.1	1313DFR-2-1-1-*	5.0	10.0	7.5	.1	1313DFR-2-1-2.5-*	6.0	8.5	10.0
.12	1313DFR-2-12-63-*	4.0	7.0	7.5	.12	1313DFR-2-12-1-*	4.5	7.5	10.0	.12	1313DFR-2-12-2.5-*	6.0	9.0	10.0
.15	1313DFR-2-15-63-*	4.0	7.5	7.5	.15	1313DFR-2-15-1-*	4.5	7.5	10.0	.15	1313DFR-2-15-2.5-*	6.0	11.0	10.0
.18	1313DFR-2-18-63-*	4.0	8.0	7.5	.18	1313DFR-2-18-1-*	5.0	10.0	12.5	.18	1313DFR-2-18-2.5-*	5.0	10.0	12.5
.22	1313DFR-2-22-63-*	4.0	8.5	7.5	.22	1313DFR-2-22-1-*	5.0	8.5	10.0	.22	1313DFR-2-22-2.5-*	5.5	10.5	12.5
.27	1313DFR-2-27-63-*	4.5	9.0	7.5	.27	1313DFR-2-27-1-*	5.5	10.0	10.0	.27	1313DFR-2-27-2.5-*	6.0	11.5	12.5
.33	1313DFR-2-33-63-*	4.5	8.5	10.0	.33	1313DFR-2-33-1-*	6.0	10.5	10.0	.33	1313DFR-2-33-2.5-*	6.5	12.0	12.5
.39	1313DFR-2-39-63-*	5.0	8.5	10.0	.39	1313DFR-2-39-1-*	6.0	11.0	10.0	.39	1313DFR-2-39-2.5-*	5.0	12.0	18.5
.47	1313DFR-2-47-63-*	5.0	9.0	10.0	.47	1313DFR-2-47-1-*	6.0	12.0	10.0	.47	1313DFR-2-47-2.5-*	5.5	12.5	18.5
.56	1313DFR-2-56-63-*	5.0	10.0	10.0	.56	1313DFR-2-56-1-*	5.5	11.0	12.5	.56	1313DFR-2-56-2.5-*	5.5	13.0	18.5
.68	1313DFR-2-68-63-*	5.5	11.0	10.0	.68	1313DFR-2-68-1-*	6.0	12.0	12.5	.68	1313DFR-2-68-2.5-*	6.0	13.5	18.5
.82	1313DFR-2-82-63-*	6.0	12.0	10.0	.82	1313DFR-2-82-1-*	6.0	13.5	12.5	.82	1313DFR-2-82-2.5-*	6.5	14.5	18.5
1.0	1313DFR-2-1.0-63-*	6.0	12.5	10.0	1.0	1313DFR-2-1.0-1-*	7.0	14.0	12.5	1.0	1313DFR-2-1.0-2.5-*	7.5	15.0	18.5
1.2	1313DFR-2-1.2-63-*	6.0	12.0	12.5	1.2	1313DFR-2-1.2-1-*	5.5	13.0	18.5	1.2	1313DFR-2-1.2-2.5-*	8.0	16.0	18.5
1.5	1313DFR-2-1.5-63-*	6.5	12.5	12.5	1.5	1313DFR-2-1.5-1-*	6.0	13.5	18.5	1.5	1313DFR-2-1.5-2.5-*	9.0	17.0	18.5
1.8	1313DFR-2-1.8-63-*	6.5	13.5	12.5	1.8	1313DFR-2-1.8-1-*	6.5	14.5	18.5	1.8	1313DFR-2-1.8-2.5-*	7.5	15.5	26.0
2.2	1313DFR-2-2.2-63-*	5.0	10.0	18.5	2.2	1313DFR-2-2.2-1-*	7.0	15.0	18.5	2.2	1313DFR-2-2.2-2.5-*	8.5	16.5	26.0
2.7	1313DFR-2-2.7-63-*	5.5	11.0	18.5	2.7	1313DFR-2-2.7-1-*	8.0	16.0	18.5	2.7	1313DFR-2-2.7-2.5-*	9.5	17.0	26.0
3.3	1313DFR-2-3.3-63-*	6.0	11.5	18.5	3.3	1313DFR-2-3.3-1-*	8.5	16.5	18.5	3.3	1313DFR-2-3.3-2.5-*	10.5	18.0	26.0
3.9	1313DFR-2-3.9-63-*	6.5	12.0	18.5	3.9	1313DFR-2-3.9-1-*	7.0	16.5	26.0	3.9	1313DFR-2-3.9-2.5-*	11.0	20.5	26.0
4.7	1313DFR-2-4.7-63-*	7.0	13.0	18.5	4.7	1313DFR-2-4.7-1-*	7.5	17.0	26.0	4.7	1313DFR-2-4.7-2.5-*	12.0	21.5	26.0
5.6	1313DFR-2-5.6-63-*	8.0	14.0	18.5	5.6	1313DFR-2-5.6-1-*	8.5	17.5	26.0	5.6	1313DFR-2-5.6-2.5-*	12.0	21.0	31.0
6.8	1313DFR-2-6.8-63-*	8.5	15.0	18.5	6.8	1313DFR-2-6.8-1-*	9.0	18.5	26.0	6.8	1313DFR-2-6.8-2.5-*	13.0	22.5	31.0

* - Please insert appropriate tolerance code



Please consult factory for special requirements, including non-standard values and sizes

1313DFR
Epoxy Dipped (Radial Leads)

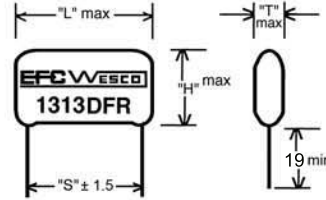
Miniature Metallized Polyester Capacitors

Lead Specs -
Tinned Copperweld

L	S	DIA
7.5	5.0	0.5
10.0	7.5	0.6
12.5	10.0	0.6
18.5	15.0	0.8
26.0	22.5	0.8
31.0	27.5	0.8

Dimensions and Ratings

All dimensions in mm



Cap.	400 VDC			
μF	Part #	T	H	L
.001	1313DFR-2-.001-4-*	4.5	7.5	10.0
.0012	1313DFR-2-.0012-4-*	4.5	7.5	10.0
.0015	1313DFR-2-.0015-4-*	4.5	7.5	10.0
.0022	1313DFR-2-.0022-4-*	4.5	7.5	10.0
.0027	1313DFR-2-.0027-4-*	4.5	7.5	10.0
.0039	1313DFR-2-.0039-4-*	4.5	7.5	10.0
.0047	1313DFR-2-.0047-4-*	4.5	7.5	10.0
.0056	1313DFR-2-.0056-4-*	4.5	7.5	10.0
.0068	1313DFR-2-.0068-4-*	4.5	7.5	10.0
.0082	1313DFR-2-.0082-4-*	4.5	7.5	10.0
.01	1313DFR-2-.01-4-*	4.5	7.5	10.0
.012	1313DFR-2-.012-4-*	4.5	7.5	10.0
.015	1313DFR-2-.015-4-*	4.5	7.5	10.0
.018	1313DFR-2-.018-4-*	4.5	7.5	10.0
.022	1313DFR-2-.022-4-*	5.0	8.5	10.0
.027	1313DFR-2-.027-4-*	5.5	9.0	10.0
.033	1313DFR-2-.033-4-*	6.0	9.5	10.0
.039	1313DFR-2-.039-4-*	5.0	8.0	12.5
.047	1313DFR-2-.047-4-*	5.0	8.5	12.5
.056	1313DFR-2-.056-4-*	5.0	9.5	12.5
.068	1313DFR-2-.068-4-*	5.5	10.5	12.5
.082	1313DFR-2-.082-4-*	6.0	11.0	12.5
.1	1313DFR-2-.1-4-*	6.5	12.0	12.5
.12	1313DFR-2-.12-4-*	5.0	10.0	18.5
.15	1313DFR-2-.15-4-*	5.0	12.5	18.5
.18	1313DFR-2-.18-4-*	5.5	12.5	18.5
.22	1313DFR-2-.22-4-*	6.0	13.0	18.5
.27	1313DFR-2-.27-4-*	6.5	14.5	18.5
.33	1313DFR-2-.33-4-*	7.0	15.0	18.5
.39	1313DFR-2-.39-4-*	7.5	15.5	18.5
.47	1313DFR-2-.47-4-*	8.0	17.0	18.5
.56	1313DFR-2-.56-4-*	6.5	16.0	26.0
.68	1313DFR-2-.68-4-*	7.0	16.5	26.0
.82	1313DFR-2-.82-4-*	8.0	17.5	26.0
1.0	1313DFR-2-1.0-4-*	8.5	19.0	26.0
1.2	1313DFR-2-1.2-4-*	9.5	19.0	26.0
1.5	1313DFR-2-1.5-4-*	9.5	19.0	31.0
1.8	1313DFR-2-1.8-4-*	11.0	20.5	31.0
2.2	1313DFR-2-2.2-4-*	12.5	22.0	31.0
2.7	1313DFR-2-2.7-4-*	13.5	23.0	31.0
3.3	1313DFR-2-3.3-4-*	15.0	25.0	31.0
3.9	1313DFR-2-3.9-4-*	16.5	27.0	31.0
4.7	1313DFR-2-4.7-4-*	19.5	30.0	31.0

Cap.	630 VDC			
μF	Part #	T	H	L
.001	1313DFR-2-.001-6.3-*	4.5	7.5	12.5
.0012	1313DFR-2-.0012-6.3-*	4.5	7.5	12.5
.0015	1313DFR-2-.0015-6.3-*	4.5	7.5	12.5
.0022	1313DFR-2-.0022-6.3-*	4.5	7.5	12.5
.0027	1313DFR-2-.0027-6.3-*	4.5	7.5	12.5
.0039	1313DFR-2-.0039-6.3-*	4.5	7.5	12.5
.0047	1313DFR-2-.0047-6.3-*	4.5	7.5	12.5
.0056	1313DFR-2-.0056-6.3-*	4.5	7.5	12.5
.0068	1313DFR-2-.0068-6.3-*	4.5	7.5	12.5
.0082	1313DFR-2-.0082-6.3-*	4.5	7.5	12.5
.01	1313DFR-2-.01-6.3-*	4.5	7.5	12.5
.012	1313DFR-2-.012-6.3-*	4.5	8.0	12.5
.015	1313DFR-2-.015-6.3-*	5.0	8.5	12.5
.018	1313DFR-2-.018-6.3-*	5.0	9.5	12.5
.022	1313DFR-2-.022-6.3-*	5.5	10.0	12.5
.027	1313DFR-2-.027-6.3-*	5.5	11.0	12.5
.033	1313DFR-2-.033-6.3-*	6.0	12.0	12.5
.039	1313DFR-2-.039-6.3-*	6.0	12.5	12.5
.047	1313DFR-2-.047-6.3-*	6.5	13.5	12.5
.056	1313DFR-2-.056-6.3-*	5.5	10.5	18.5
.068	1313DFR-2-.068-6.3-*	6.0	11.0	18.5
.082	1313DFR-2-.082-6.3-*	6.5	12.0	18.5
.1	1313DFR-2-.1-6.3-*	6.5	13.5	18.5
.12	1313DFR-2-.12-6.3-*	6.5	14.5	18.5
.15	1313DFR-2-.15-6.3-*	7.5	15.5	18.5
.18	1313DFR-2-.18-6.3-*	8.0	16.0	18.5
.22	1313DFR-2-.22-6.3-*	9.0	16.5	18.5
.27	1313DFR-2-.27-6.3-*	7.0	16.5	26.0
.33	1313DFR-2-.33-6.3-*	8.0	17.0	26.0
.39	1313DFR-2-.39-6.3-*	8.5	18.0	26.0
.47	1313DFR-2-.47-6.3-*	9.5	18.5	26.0
.56	1313DFR-2-.56-6.3-*	10.0	20.0	26.0
.68	1313DFR-2-.68-6.3-*	11.5	21.0	26.0
.82	1313DFR-2-.82-6.3-*	11.5	20.5	31.0
1.0	1313DFR-2-1.0-6.3-*	12.5	22.0	31.0
1.2	1313DFR-2-1.2-6.3-*	13.5	23.0	31.0
1.5	1313DFR-2-1.5-6.3-*	15.5	25.0	31.0
1.8	1313DFR-2-1.8-6.3-*	17.0	27.0	31.0
2.2	1313DFR-2-2.2-6.3-*	19.5	29.0	31.0

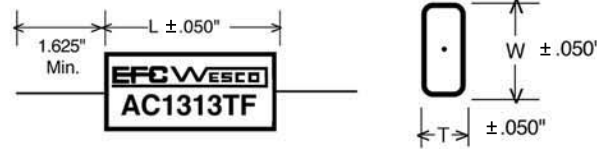
* - Please insert appropriate tolerance code



AC1313TF Oval Wrap & Fill

Metallized Polyester Capacitors

Lead Spec.
Tinned Copperweld
Under .190T = 24 AWG
.190 - .380T = 22AWG
Above .380T = 20 AWG



Dimensions and Ratings

Cap.	150 VAC / 60 HZ			
μF	Part #	T	W	L
.047	AC1313TF-3-.047-1.5AC-*	.125	.250	.625
.056	AC1313TF-3-.056-1.5AC-*	.125	.250	.625
.068	AC1313TF-3-.068-1.5AC-*	.125	.250	.625
.082	AC1313TF-3-.082-1.5AC-*	.125	.250	.625
.1	AC1313TF-3-.1-1.5AC-*	.125	.250	.625
.12	AC1313TF-3-.12-1.5AC-*	.140	.312	.625
.15	AC1313TF-3-.15-1.5AC-*	.156	.343	.625
.18	AC1313TF-3-.18-1.5AC-*	.171	.343	.625
.22	AC1313TF-3-.22-1.5AC-*	.171	.343	.625
.27	AC1313TF-3-.27-1.5AC-*	.140	.265	1.000
.33	AC1313TF-3-.33-1.5AC-*	.156	.343	1.000
.39	AC1313TF-3-.39-1.5AC-*	.140	.312	1.000
.47	AC1313TF-3-.47-1.5AC-*	.156	.343	1.000
.56	AC1313TF-3-.56-1.5AC-*	.171	.375	1.000
.68	AC1313TF-3-.68-1.5AC-*	.171	.375	1.000
.82	AC1313TF-3-.82-1.5AC-*	.187	.484	1.000
1.0	AC1313TF-3-1.0-1.5AC-*	.187	.484	1.000
1.5	AC1313TF-3-1.5-1.5AC-*	.234	.578	1.000
2.0	AC1313TF-3-2.0-1.5AC-*	.281	.578	1.000
2.5	AC1313TF-3-2.5-1.5AC-*	.296	.640	1.500
3.0	AC1313TF-3-3.0-1.5AC-*	.328	.718	1.500
4.0	AC1313TF-3-4.0-1.5AC-*	.312	.703	2.000
5.0	AC1313TF-3-5.0-1.5AC-*	.359	.750	2.000
6.0	AC1313TF-3-6.0-1.5AC-*	.343	.734	2.500
7.0	AC1313TF-3-7.0-1.5AC-*	.375	.785	2.500
8.0	AC1313TF-3-8.0-1.5AC-*	.375	.859	2.500
10.0	AC1313TF-3-10.0-1.5AC-*	.421	.908	2.500
12.0	AC1313TF-3-12.0-1.5AC-*	.468	1.062	2.500

Cap.	250 VAC / 60 HZ			
μF	Part #	T	W	L
.047	AC1313TF-3-.047-2.5AC-*	.140	.265	.625
.056	AC1313TF-3-.056-2.5AC-*	.140	.312	.625
.068	AC1313TF-3-.068-2.5AC-*	.140	.312	.625
.082	AC1313TF-3-.082-2.5AC-*	.171	.375	.625
.1	AC1313TF-3-.1-2.5AC-*	.171	.375	.625
.12	AC1313TF-3-.12-2.5AC-*	.140	.312	1.000
.15	AC1313TF-3-.15-2.5AC-*	.140	.312	1.000
.18	AC1313TF-3-.18-2.5AC-*	.171	.343	1.000
.22	AC1313TF-3-.22-2.5AC-*	.171	.343	1.000
.27	AC1313TF-3-.27-2.5AC-*	.203	.406	1.000
.33	AC1313TF-3-.33-2.5AC-*	.203	.406	1.000
.39	AC1313TF-3-.39-2.5AC-*	.218	.515	1.000
.47	AC1313TF-3-.47-2.5AC-*	.218	.515	1.000
.56	AC1313TF-3-.56-2.5AC-*	.265	.562	1.000
.68	AC1313TF-3-.68-2.5AC-*	.265	.562	1.000
.82	AC1313TF-3-.82-2.5AC-*	.234	.531	1.500
1.0	AC1313TF-3-1.0-2.5AC-*	.234	.531	1.500
1.5	AC1313TF-3-1.5-2.5AC-*	.296	.593	1.500
2.0	AC1313TF-3-2.0-2.5AC-*	.328	.718	1.500
2.5	AC1313TF-3-2.5-2.5AC-*	.437	.921	2.000
3.0	AC1313TF-3-3.0-2.5AC-*	.421	.906	2.500
4.0	AC1313TF-3-4.0-2.5AC-*	.468	1.062	2.500
5.0	AC1313TF-3-5.0-2.5AC-*	.546	1.140	2.500
6.0	AC1313TF-3-6.0-2.5AC-*	.578	1.265	2.500
7.0	AC1313TF-3-7.0-2.5AC-*	.640	1.328	2.500
8.0	AC1313TF-3-8.0-2.5AC-*	.640	1.421	2.500
10.0	AC1313TF-3-10.0-2.5AC-*	.765	1.546	2.500

- Notes:**
- 1) EFC Series AC1313TF capacitors are designed for general purpose 60 HZ applications.
 - 2) Quality AC applications are assured through the use of specially metallized dielectrics and end terminations.
 - 3) For 85°C operation, a 75% derating is recommended.
 - 4) Not recommended for "across the line" applications.

* - Please insert appropriate tolerance code

Series 1206

Polypropylene and Foil

Features: Flame retardant to UL94, excellent long term stability, high insulation resistance, low dissipation factor, negative temperature coefficient, high frequency operation, high dv/dt ratings.

Applications: Timing circuits, switch mode power supplies (SMPS), snubber circuits.

Packaging: Axial wrap and fill (TF, TC), radial lead box (EFR, DFR), axial lead epoxy tube (EC).

Specifications

1) Temperature Range

-55°C to 105°C with 50% voltage derating above 85°C.

2) Capacitance

0.001µF to 5µF

3) Dielectric Strength

At 25°C, 200% of rated voltage when applied terminal to terminal for one minute through a current limiting resistance.

4) Insulation Resistance

At 25°C after 2 minutes charge time at rated voltage or 500 VDC, whichever is less, the minimum IR shall be 200,000 Megohm-Microfarads, but need not exceed 250,000 Megohms.

5) Humidity Resistance

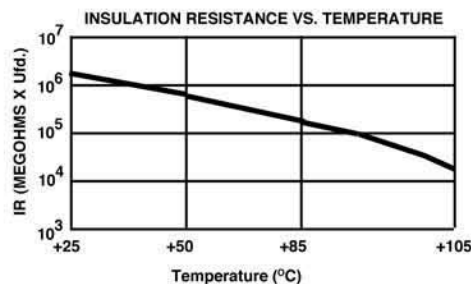
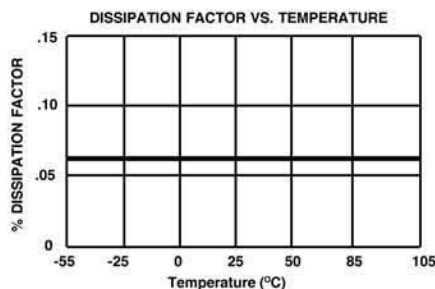
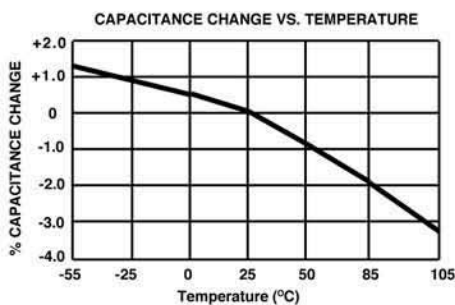
Series 1206 shall meet the requirements of MIL-STD. 202, Method 103B.

6) Dissipation Factor

Shall be 0.07% max. when measured at 1KHz and 25°C.

7) Life Test

Will withstand the application of 140% rated voltage at + 85°C for 250 hours with not more than one failure in 12 permitted.



**Typical Temperature Curves
Polypropylene and Foil**

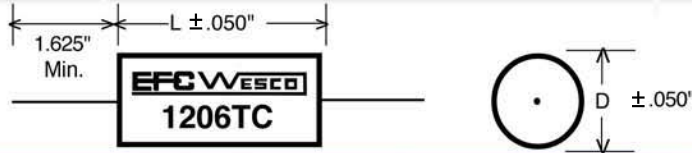


Please consult factory for special requirements, including non-standard values and sizes

1206TC Tubular Wrap & Fill

Polypropylene and Foil Capacitors

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG



Dimensions and Ratings

Cap.	50 VDC		
μF	Part #	D	L
.001	1206TC-3-.001-0-*	.180	.406
.0012	1206TC-3-.0012-0-*	.180	.406
.0015	1206TC-3-.0015-0-*	.180	.406
.0022	1206TC-3-.0022-0-*	.180	.406
.0027	1206TC-3-.0027-0-*	.180	.406
.0039	1206TC-3-.0039-0-*	.180	.406
.0047	1206TC-3-.0047-0-*	.180	.406
.0056	1206TC-3-.0056-0-*	.180	.406
.0068	1206TC-3-.0068-0-*	.180	.406
.0082	1206TC-3-.0082-0-*	.190	.406
.01	1206TC-3-.01-0-*	.200	.406
.012	1206TC-3-.012-0-*	.220	.406
.015	1206TC-3-.015-0-*	.240	.406
.018	1206TC-3-.018-0-*	.180	.531
.022	1206TC-3-.022-0-*	.190	.531
.027	1206TC-3-.027-0-*	.210	.531
.033	1206TC-3-.033-0-*	.230	.531
.039	1206TC-3-.039-0-*	.250	.531
.047	1206TC-3-.047-0-*	.270	.531
.056	1206TC-3-.056-0-*	.290	.531
.068	1206TC-3-.068-0-*	.260	.656
.082	1206TC-3-.082-0-*	.290	.656
.1	1206TC-3-.1-0-*	.310	.656
.12	1206TC-3-.12-0-*	.340	.656
.15	1206TC-3-.15-0-*	.380	.656
.18	1206TC-3-.18-0-*	.360	.781
.22	1206TC-3-.22-0-*	.390	.781
.27	1206TC-3-.27-0-*	.390	.906
.33	1206TC-3-.33-0-*	.430	.906
.39	1206TC-3-.39-0-*	.470	.906
.47	1206TC-3-.47-0-*	.430	1.190
.56	1206TC-3-.56-0-*	.470	1.190
.68	1206TC-3-.68-0-*	.510	1.190
.82	1206TC-3-.82-0-*	.560	1.190
1.0	1206TC-3-1.0-0-*	.620	1.190
1.25	1206TC-3-1.25-0-*	.610	1.440
1.5	1206TC-3-1.5-0-*	.670	1.440
2.0	1206TC-3-2.0-0-*	.630	1.440
3.0	1206TC-3-3.0-0-*	.700	1.690
4.0	1206TC-3-4.0-0-*	.810	1.690

Cap.	100 VDC		
μF	Part #	D	L
.001	1206TC-3-.001-1-*	.180	.406
.0012	1206TC-3-.0012-1-*	.180	.406
.0015	1206TC-3-.0015-1-*	.180	.406
.0022	1206TC-3-.0022-1-*	.180	.406
.0027	1206TC-3-.0027-1-*	.180	.406
.0039	1206TC-3-.0039-1-*	.180	.406
.0047	1206TC-3-.0047-1-*	.180	.406
.0056	1206TC-3-.0056-1-*	.180	.406
.0068	1206TC-3-.0068-1-*	.190	.406
.0082	1206TC-3-.0082-1-*	.210	.406
.01	1206TC-3-.01-1-*	.230	.406
.012	1206TC-3-.012-1-*	.250	.406
.015	1206TC-3-.015-1-*	.180	.531
.018	1206TC-3-.018-1-*	.200	.531
.022	1206TC-3-.022-1-*	.210	.531
.027	1206TC-3-.027-1-*	.240	.531
.033	1206TC-3-.033-1-*	.260	.531
.039	1206TC-3-.039-1-*	.280	.531
.047	1206TC-3-.047-1-*	.250	.656
.056	1206TC-3-.056-1-*	.270	.656
.068	1206TC-3-.068-1-*	.290	.656
.082	1206TC-3-.082-1-*	.320	.656
.1	1206TC-3-.1-1-*	.350	.656
.12	1206TC-3-.12-1-*	.340	.781
.15	1206TC-3-.15-1-*	.370	.781
.18	1206TC-3-.18-1-*	.410	.781
.22	1206TC-3-.22-1-*	.400	.906
.27	1206TC-3-.27-1-*	.440	.906
.33	1206TC-3-.33-1-*	.490	.906
.39	1206TC-3-.39-1-*	.450	1.190
.47	1206TC-3-.47-1-*	.490	1.190
.56	1206TC-3-.56-1-*	.540	1.190
.68	1206TC-3-.68-1-*	.590	1.190
.82	1206TC-3-.82-1-*	.650	1.190
1.0	1206TC-3-1.0-1-*	.630	1.440
1.25	1206TC-3-1.25-1-*	.700	1.440
1.5	1206TC-3-1.5-1-*	.690	1.690
2.0	1206TC-3-2.0-1-*	.800	1.690
3.0	1206TC-3-3.0-1-*	.890	1.940
4.0	1206TC-3-4.0-1-*	1.030	1.940
5.0	1206TC-3-5.0-1-*	1.150	1.940

Cap.	160 VDC		
μF	Part #	D	L
.001	1206TC-3-.001-1.6-*	.180	.406
.0012	1206TC-3-.0012-1.6-*	.180	.406
.0015	1206TC-3-.0015-1.6-*	.180	.406
.0022	1206TC-3-.0022-1.6-*	.180	.406
.0027	1206TC-3-.0027-1.6-*	.180	.406
.0039	1206TC-3-.0039-1.6-*	.180	.406
.0047	1206TC-3-.0047-1.6-*	.180	.406
.0056	1206TC-3-.0056-1.6-*	.180	.406
.0068	1206TC-3-.0068-1.6-*	.190	.406
.0082	1206TC-3-.0082-1.6-*	.210	.406
.01	1206TC-3-.01-1.6-*	.230	.406
.012	1206TC-3-.012-1.6-*	.250	.406
.015	1206TC-3-.015-1.6-*	.180	.531
.018	1206TC-3-.018-1.6-*	.200	.531
.022	1206TC-3-.022-1.6-*	.210	.531
.027	1206TC-3-.027-1.6-*	.240	.531
.033	1206TC-3-.033-1.6-*	.260	.531
.039	1206TC-3-.039-1.6-*	.280	.531
.047	1206TC-3-.047-1.6-*	.250	.656
.056	1206TC-3-.056-1.6-*	.270	.656
.068	1206TC-3-.068-1.6-*	.290	.656
.082	1206TC-3-.082-1.6-*	.320	.656
.1	1206TC-3-.1-1.6-*	.350	.656
.12	1206TC-3-.12-1.6-*	.340	.781
.15	1206TC-3-.15-1.6-*	.370	.781
.18	1206TC-3-.18-1.6-*	.410	.781
.22	1206TC-3-.22-1.6-*	.400	.906
.27	1206TC-3-.27-1.6-*	.440	.906
.33	1206TC-3-.33-1.6-*	.490	.906
.39	1206TC-3-.39-1.6-*	.450	1.190
.47	1206TC-3-.47-1.6-*	.490	1.190
.56	1206TC-3-.56-1.6-*	.540	1.190
.68	1206TC-3-.68-1.6-*	.590	1.190
.82	1206TC-3-.82-1.6-*	.650	1.190
1.0	1206TC-3-1.0-1.6-*	.630	1.440
1.25	1206TC-3-1.25-1.6-*	.700	1.440
1.5	1206TC-3-1.5-1.6-*	.690	1.690
2.0	1206TC-3-2.0-1.6-*	.800	1.690
3.0	1206TC-3-3.0-1.6-*	.890	1.940
4.0	1206TC-3-4.0-1.6-*	1.030	1.940
5.0	1206TC-3-5.0-1.6-*	1.150	1.940

* - Please insert appropriate tolerance code

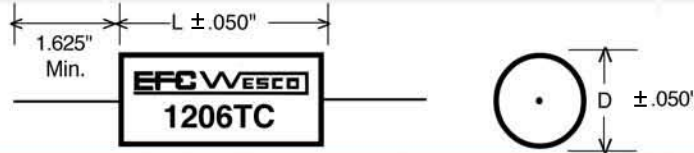


Please consult factory for special requirements, including non-standard values and sizes

1206TC Tubular Wrap & Fill

Polypropylene and Foil Capacitors

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG



Dimensions and Ratings

Cap.	200 VDC		
µF	Part #	D	L
.001	1206TC-3-.001-2-*	.180	.406
.0012	1206TC-3-.0012-2-*	.180	.406
.0015	1206TC-3-.0015-2-*	.180	.406
.0022	1206TC-3-.0022-2-*	.180	.406
.0027	1206TC-3-.0027-2-*	.180	.406
.0039	1206TC-3-.0039-2-*	.180	.406
.0047	1206TC-3-.0047-2-*	.200	.406
.0056	1206TC-3-.0056-2-*	.210	.406
.0068	1206TC-3-.0068-2-*	.230	.406
.0082	1206TC-3-.0082-2-*	.170	.531
.01	1206TC-3-.01-2-*	.190	.531
.012	1206TC-3-.012-2-*	.200	.531
.015	1206TC-3-.015-2-*	.220	.531
.018	1206TC-3-.018-2-*	.240	.531
.022	1206TC-3-.022-2-*	.270	.531
.027	1206TC-3-.027-2-*	.240	.656
.033	1206TC-3-.033-2-*	.260	.656
.039	1206TC-3-.039-2-*	.280	.656
.047	1206TC-3-.047-2-*	.310	.656
.056	1206TC-3-.056-2-*	.340	.656
.068	1206TC-3-.068-2-*	.370	.656
.082	1206TC-3-.082-2-*	.350	.781
.1	1206TC-3-.1-2-*	.390	.781
.12	1206TC-3-.12-2-*	.420	.781
.15	1206TC-3-.15-2-*	.420	.906
.18	1206TC-3-.18-2-*	.460	.906
.22	1206TC-3-.22-2-*	.500	.906
.27	1206TC-3-.27-2-*	.480	1.190
.33	1206TC-3-.33-5-*	.520	1.190
.39	1206TC-3-.39-2-*	.570	1.190
.47	1206TC-3-.47-2-*	.620	1.190
.56	1206TC-3-.56-2-*	.590	1.440
.68	1206TC-3-.68-2-*	.650	1.440
.82	1206TC-3-.82-2-*	.710	1.440
1.0	1206TC-3-1.0-2-*	.720	1.690
1.25	1206TC-3-1.25-2-*	.800	1.690
1.5	1206TC-3-1.5-2-*	.800	1.690
2.0	1206TC-3-2.0-2-*	.920	1.940
3.0	1206TC-3-3.0-2-*	1.130	1.940

Cap.	400 VDC		
µF	Part #	D	L
.001	1206TC-3-.001-4-*	.160	.406
.0012	1206TC-3-.0012-4-*	.170	.406
.0015	1206TC-3-.0015-4-*	.190	.406
.0022	1206TC-3-.0022-4-*	.230	.406
.0027	1206TC-3-.0027-4-*	.250	.406
.0039	1206TC-3-.0039-4-*	.180	.531
.0047	1206TC-3-.0047-4-*	.190	.531
.0056	1206TC-3-.0056-4-*	.210	.531
.0068	1206TC-3-.0068-4-*	.230	.531
.0082	1206TC-3-.0082-4-*	.250	.531
.01	1206TC-3-.01-4-*	.270	.531
.012	1206TC-3-.012-4-*	.290	.531
.015	1206TC-3-.015-4-*	.260	.656
.018	1206TC-3-.018-4-*	.280	.656
.022	1206TC-3-.022-4-*	.310	.656
.027	1206TC-3-.027-4-*	.340	.656
.033	1206TC-3-.033-4-*	.370	.656
.039	1206TC-3-.039-4-*	.350	.781
.047	1206TC-3-.047-4-*	.380	.781
.056	1206TC-3-.056-4-*	.420	.781
.068	1206TC-3-.068-4-*	.400	.906
.082	1206TC-3-.082-4-*	.440	.906
.1	1206TC-3-.1-4-*	.490	.906
.12	1206TC-3-.12-4-*	.450	1.190
.15	1206TC-3-.15-4-*	.500	1.190
.18	1206TC-3-.18-4-*	.550	1.190
.22	1206TC-3-.22-4-*	.600	1.190
.27	1206TC-3-.27-4-*	.670	1.190
.33	1206TC-3-.33-5-*	.640	1.440
.39	1206TC-3-.39-4-*	.700	1.440
.47	1206TC-3-.47-4-*	.690	1.690
.56	1206TC-3-.56-4-*	.750	1.690
.68	1206TC-3-.68-4-*	.830	1.690
.82	1206TC-3-.82-4-*	.830	1.940
1.0	1206TC-3-1.0-4-*	.920	1.940
1.25	1206TC-3-1.25-4-*	1.030	1.440
1.5	1206TC-3-1.5-4-*	1.040	2.250
2.0	1206TC-3-2.0-4-*	1.200	2.250

Cap.	600 VDC		
µF	Part #	D	L
.001	1206TC-3-.001-6-*	.150	.531
.0012	1206TC-3-.0012-6-*	.160	.531
.0015	1206TC-3-.0015-6-*	.170	.531
.0022	1206TC-3-.0022-6-*	.200	.531
.0027	1206TC-3-.0027-6-*	.220	.531
.0039	1206TC-3-.0039-6-*	.270	.531
.0047	1206TC-3-.0047-6-*	.290	.531
.0056	1206TC-3-.0056-6-*	.230	.656
.0068	1206TC-3-.0068-6-*	.250	.656
.0082	1206TC-3-.0082-6-*	.270	.656
.01	1206TC-3-.01-6-*	.300	.656
.012	1206TC-3-.012-6-*	.330	.656
.015	1206TC-3-.015-6-*	.360	.656
.018	1206TC-3-.018-6-*	.330	.781
.022	1206TC-3-.022-6-*	.360	.781
.027	1206TC-3-.027-6-*	.400	.781
.033	1206TC-3-.033-6-*	.380	.906
.039	1206TC-3-.039-6-*	.420	.906
.047	1206TC-3-.047-6-*	.460	.906
.056	1206TC-3-.056-6-*	.500	.906
.068	1206TC-3-.068-6-*	.450	1.190
.082	1206TC-3-.082-6-*	.500	1.190
.1	1206TC-3-.1-6-*	.550	1.190
.12	1206TC-3-.12-6-*	.590	1.190
.15	1206TC-3-.15-6-*	.660	1.190
.18	1206TC-3-.18-6-*	.630	1.440
.22	1206TC-3-.22-6-*	.690	1.440
.27	1206TC-3-.27-6-*	.690	1.690
.33	1206TC-3-.33-5-*	.760	1.690
.39	1206TC-3-.39-6-*	.830	1.690
.47	1206TC-3-.47-6-*	.830	1.940
.56	1206TC-3-.56-6-*	.900	1.940
.68	1206TC-3-.68-6-*	.990	1.940
.82	1206TC-3-.82-6-*	1.090	1.940
1.0	1206TC-3-1.0-6-*	1.110	2.250
1.25	1206TC-3-1.25-6-*	1.240	2.250
1.5	1206TC-3-1.5-6-*	1.360	2.250

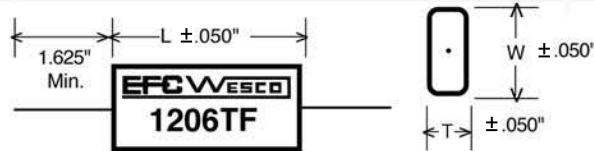
* - Please insert appropriate tolerance code



1206TF Oval Wrap & Fill

Polypropylene and Foil Capacitors

Lead Spec.
Tinned Copperweld
Under .190T = 24 AWG
.190 - .380T = 22AWG
Above .380T = 20 AWG



Dimensions and Ratings

50 VDC					100 VDC					160 VDC				
Cap.	Part #	T	W	L	Cap.	Part #	T	W	L	Cap.	Part #	T	W	L
.001	1206TF-3-.001-0-*	.120	.210	.406	.001	1206TF-3-.001-1-*	.120	.210	.406	.001	1206TF-3-.001-1.6-*	.120	.210	.406
.0012	1206TF-3-.0012-0-*	.120	.210	.406	.0012	1206TF-3-.0012-1-*	.120	.210	.406	.0012	1206TF-3-.0012-1.6-*	.120	.210	.406
.0015	1206TF-3-.0015-0-*	.120	.210	.406	.0015	1206TF-3-.0015-1-*	.120	.210	.406	.0015	1206TF-3-.0015-1.6-*	.120	.210	.406
.0022	1206TF-3-.0022-0-*	.120	.210	.406	.0022	1206TF-3-.0022-1-*	.120	.210	.406	.0022	1206TF-3-.0022-1.6-*	.120	.210	.406
.0027	1206TF-3-.0027-0-*	.120	.210	.406	.0027	1206TF-3-.0027-1-*	.120	.210	.406	.0027	1206TF-3-.0027-1.6-*	.120	.210	.406
.0039	1206TF-3-.0039-0-*	.120	.210	.406	.0039	1206TF-3-.0039-1-*	.120	.210	.406	.0039	1206TF-3-.0039-1.6-*	.120	.210	.406
.0047	1206TF-3-.0047-0-*	.120	.210	.406	.0047	1206TF-3-.0047-1-*	.120	.210	.406	.0047	1206TF-3-.0047-1.6-*	.120	.210	.406
.0056	1206TF-3-.0056-0-*	.120	.210	.406	.0056	1206TF-3-.0056-1-*	.120	.210	.406	.0056	1206TF-3-.0056-1.6-*	.120	.210	.406
.0068	1206TF-3-.0068-0-*	.120	.210	.406	.0068	1206TF-3-.0068-1-*	.130	.230	.406	.0068	1206TF-3-.0068-1.6-*	.130	.230	.406
.0082	1206TF-3-.0082-0-*	.130	.220	.406	.0082	1206TF-3-.0082-1-*	.150	.240	.406	.0082	1206TF-3-.0082-1.6-*	.150	.240	.406
.01	1206TF-3-.01-0-*	.140	.240	.406	.01	1206TF-3-.01-1-*	.170	.260	.406	.01	1206TF-3-.01-1.6-*	.170	.260	.406
.012	1206TF-3-.012-0-*	.160	.250	.406	.012	1206TF-3-.012-1-*	.190	.280	.406	.012	1206TF-3-.012-1.6-*	.190	.280	.406
.015	1206TF-3-.015-0-*	.180	.280	.406	.015	1206TF-3-.015-1-*	.120	.210	.531	.015	1206TF-3-.015-1.6-*	.120	.210	.531
.018	1206TF-3-.018-0-*	.120	.210	.531	.018	1206TF-3-.018-1-*	.140	.220	.531	.018	1206TF-3-.018-1.6-*	.140	.220	.531
.022	1206TF-3-.022-0-*	.130	.230	.531	.022	1206TF-3-.022-1-*	.150	.230	.531	.022	1206TF-3-.022-1.6-*	.150	.230	.531
.027	1206TF-3-.027-0-*	.150	.240	.531	.027	1206TF-3-.027-1-*	.180	.250	.531	.027	1206TF-3-.027-1.6-*	.180	.250	.531
.033	1206TF-3-.033-0-*	.170	.260	.531	.033	1206TF-3-.033-1-*	.200	.270	.531	.033	1206TF-3-.033-1.6-*	.200	.270	.531
.039	1206TF-3-.039-0-*	.190	.280	.531	.039	1206TF-3-.039-1-*	.220	.290	.531	.039	1206TF-3-.039-1.6-*	.220	.290	.531
.047	1206TF-3-.047-0-*	.210	.310	.531	.047	1206TF-3-.047-1-*	.190	.310	.656	.047	1206TF-3-.047-1.6-*	.190	.310	.656
.056	1206TF-3-.056-0-*	.230	.330	.531	.056	1206TF-3-.056-1-*	.210	.280	.656	.056	1206TF-3-.056-1.6-*	.210	.280	.656
.068	1206TF-3-.068-0-*	.200	.300	.656	.068	1206TF-3-.068-1-*	.230	.300	.656	.068	1206TF-3-.068-1.6-*	.230	.300	.656
.082	1206TF-3-.082-0-*	.230	.320	.656	.082	1206TF-3-.082-1-*	.260	.330	.656	.082	1206TF-3-.082-1.6-*	.260	.330	.656
.1	1206TF-3-.1-0-*	.250	.350	.656	.1	1206TF-3-.1-1-*	.290	.360	.656	.1	1206TF-3-.1-1.6-*	.290	.360	.656
.12	1206TF-3-.12-0-*	.280	.380	.656	.12	1206TF-3-.12-1-*	.260	.390	.781	.12	1206TF-3-.12-1.6-*	.260	.390	.781
.15	1206TF-3-.15-0-*	.320	.420	.656	.15	1206TF-3-.15-1-*	.290	.380	.781	.15	1206TF-3-.15-1.6-*	.290	.380	.781
.18	1206TF-3-.18-0-*	.300	.390	.781	.18	1206TF-3-.18-1-*	.330	.420	.781	.18	1206TF-3-.18-1.6-*	.330	.420	.781
.22	1206TF-3-.22-0-*	.330	.430	.781	.22	1206TF-3-.22-1-*	.320	.450	.906	.22	1206TF-3-.22-1.6-*	.320	.450	.906
.27	1206TF-3-.27-0-*	.330	.420	.906	.27	1206TF-3-.27-1-*	.360	.490	.906	.27	1206TF-3-.27-1.6-*	.360	.490	.906
.33	1206TF-3-.33-0-*	.370	.460	.906	.33	1206TF-3-.33-1-*	.410	.530	.906	.33	1206TF-3-.33-1.6-*	.410	.530	.906
.39	1206TF-3-.39-0-*	.410	.500	.906	.39	1206TF-3-.39-1-*	.350	.510	1.190	.39	1206TF-3-.39-1.6-*	.350	.510	1.190
.47	1206TF-3-.47-0-*	.370	.460	1.190	.47	1206TF-3-.47-1-*	.390	.560	1.190	.47	1206TF-3-.47-1.6-*	.390	.560	1.190
.56	1206TF-3-.56-0-*	.410	.500	1.190	.56	1206TF-3-.56-1-*	.430	.600	1.190	.56	1206TF-3-.56-1.6-*	.430	.600	1.190
.68	1206TF-3-.68-0-*	.450	.550	1.190	.68	1206TF-3-.68-1-*	.480	.650	1.190	.68	1206TF-3-.68-1.6-*	.480	.650	1.190
.82	1206TF-3-.82-0-*	.500	.600	1.190	.82	1206TF-3-.82-1-*	.540	.710	1.190	.82	1206TF-3-.82-1.6-*	.540	.710	1.190
1.0	1206TF-3-1.0-0-*	.560	.660	1.190	1.0	1206TF-3-1.0-1-*	.520	.690	1.440	1.0	1206TF-3-1.0-1.6-*	.520	.690	1.440
1.25	1206TF-3-1.25-0-*	.550	.650	1.440	1.25	1206TF-3-1.25-1-*	.590	.760	1.440	1.25	1206TF-3-1.25-1.6-*	.590	.760	1.440
1.5	1206TF-3-1.5-0-*	.610	.700	1.440	1.5	1206TF-3-1.5-1-*	.570	.770	1.690	1.5	1206TF-3-1.5-1.6-*	.570	.770	1.690
2.0	1206TF-3-2.0-0-*	.570	.670	1.440	2.0	1206TF-3-2.0-1-*	.670	.870	1.690	2.0	1206TF-3-2.0-1.6-*	.670	.870	1.690
3.0	1206TF-3-3.0-0-*	.620	.750	1.690	3.0	1206TF-3-3.0-1-*	.770	.970	1.940	3.0	1206TF-3-3.0-1.6-*	.770	.970	1.940
4.0	1206TF-3-4.0-0-*	.730	.850	1.690	4.0	1206TF-3-4.0-1-*	.900	1.100	1.940	4.0	1206TF-3-4.0-1.6-*	.900	1.100	1.940
					5.0	1206TF-3-5.0-1-*	1.020	1.220	1.940	5.0	1206TF-3-5.0-1.6-*	1.020	1.220	1.940

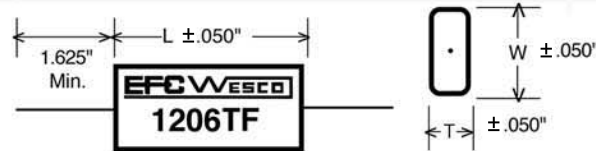
* - Please insert appropriate tolerance code



1206TF Oval Wrap & Fill

Polypropylene and Foil Capacitors

Lead Spec.
Tinned Copperweld
Under .190T = 24 AWG
.190 - .380T = 22AWG
Above .380T = 20 AWG



Dimensions and Ratings

200 VDC					400 VDC					600 VDC				
Cap. μ F	Part #	T	W	L	Cap. μ F	Part #	T	W	L	Cap. μ F	Part #	T	W	L
.001	1206TF-3-.001-2-*	.120	.210	.406	.001	1206TF-3-.001-4-*	.120	.210	.406	.001	1206TF-3-.001-6-*	.120	.210	.531
.0012	1206TF-3-.0012-2-*	.120	.210	.406	.0012	1206TF-3-.0012-4-*	.120	.210	.406	.0012	1206TF-3-.0012-6-*	.120	.210	.531
.0015	1206TF-3-.0015-2-*	.120	.210	.406	.0015	1206TF-3-.0015-4-*	.130	.230	.406	.0015	1206TF-3-.0015-6-*	.120	.210	.531
.0022	1206TF-3-.0022-2-*	.120	.210	.406	.0022	1206TF-3-.0022-4-*	.170	.260	.406	.0022	1206TF-3-.0022-6-*	.140	.240	.531
.0027	1206TF-3-.0027-2-*	.120	.210	.406	.0027	1206TF-3-.0027-4-*	.190	.280	.406	.0027	1206TF-3-.0027-6-*	.160	.260	.531
.0039	1206TF-3-.0039-2-*	.120	.220	.406	.0039	1206TF-3-.0039-4-*	.120	.210	.531	.0039	1206TF-3-.0039-6-*	.210	.300	.531
.0047	1206TF-3-.0047-2-*	.140	.230	.406	.0047	1206TF-3-.0047-4-*	.130	.230	.531	.0047	1206TF-3-.0047-6-*	.230	.320	.531
.0056	1206TF-3-.0056-2-*	.150	.250	.406	.0056	1206TF-3-.0056-4-*	.150	.240	.531	.0056	1206TF-3-.0056-6-*	.170	.260	.656
.0068	1206TF-3-.0068-2-*	.170	.270	.406	.0068	1206TF-3-.0068-4-*	.170	.260	.531	.0068	1206TF-3-.0068-6-*	.190	.280	.656
.0082	1206TF-3-.0082-2-*	.110	.210	.531	.0082	1206TF-3-.0082-4-*	.190	.280	.531	.0082	1206TF-3-.0082-6-*	.210	.310	.656
.01	1206TF-3-.01-2-*	.130	.220	.531	.01	1206TF-3-.01-4-*	.210	.300	.531	.01	1206TF-3-.01-6-*	.240	.330	.656
.012	1206TF-3-.012-2-*	.140	.240	.531	.012	1206TF-3-.012-4-*	.230	.330	.531	.012	1206TF-3-.012-6-*	.270	.360	.656
.015	1206TF-3-.015-2-*	.160	.260	.531	.015	1206TF-3-.015-4-*	.200	.290	.656	.015	1206TF-3-.015-6-*	.300	.400	.656
.018	1206TF-3-.018-2-*	.180	.280	.531	.018	1206TF-3-.018-4-*	.220	.310	.656	.018	1206TF-3-.018-6-*	.350	.380	.781
.022	1206TF-3-.022-2-*	.210	.300	.531	.022	1206TF-3-.022-4-*	.250	.340	.656	.022	1206TF-3-.022-6-*	.280	.410	.781
.027	1206TF-3-.027-2-*	.180	.270	.656	.027	1206TF-3-.027-4-*	.280	.370	.656	.027	1206TF-3-.027-6-*	.320	.450	.781
.033	1206TF-3-.033-2-*	.200	.300	.656	.033	1206TF-3-.033-4-*	.310	.410	.656	.033	1206TF-3-.033-6-*	.300	.430	.906
.039	1206TF-3-.039-2-*	.220	.320	.656	.039	1206TF-3-.039-4-*	.270	.400	.781	.039	1206TF-3-.039-6-*	.340	.460	.906
.047	1206TF-3-.047-2-*	.250	.340	.656	.047	1206TF-3-.047-4-*	.300	.430	.781	.047	1206TF-3-.047-6-*	.380	.500	.906
.056	1206TF-3-.056-2-*	.280	.370	.656	.056	1206TF-3-.056-4-*	.340	.460	.781	.056	1206TF-3-.056-6-*	.420	.540	.906
.068	1206TF-3-.068-2-*	.310	.400	.656	.068	1206TF-3-.068-4-*	.320	.450	.906	.068	1206TF-3-.068-6-*	.350	.510	1.190
.082	1206TF-3-.082-2-*	.270	.400	.781	.082	1206TF-3-.082-4-*	.360	.490	.906	.082	1206TF-3-.082-6-*	.390	.560	1.190
.1	1206TF-3-.1-2-*	.310	.430	.781	.1	1206TF-3-.1-4-*	.410	.530	.906	.1	1206TF-3-.1-6-*	.440	.610	1.190
.12	1206TF-3-.12-2-*	.340	.470	.781	.12	1206TF-3-.12-4-*	.350	.510	1.190	.12	1206TF-3-.12-6-*	.490	.660	1.190
.15	1206TF-3-.15-2-*	.340	.460	.906	.15	1206TF-3-.15-4-*	.400	.560	1.190	.15	1206TF-3-.15-6-*	.560	.720	1.190
.18	1206TF-3-.18-2-*	.380	.500	.906	.18	1206TF-3-.18-4-*	.440	.610	1.190	.18	1206TF-3-.18-6-*	.520	.690	1.440
.22	1206TF-3-.22-2-*	.420	.550	.906	.22	1206TF-3-.22-4-*	.500	.660	1.190	.22	1206TF-3-.22-6-*	.590	.750	1.440
.27	1206TF-3-.27-2-*	.370	.540	1.190	.27	1206TF-3-.27-4-*	.560	.730	1.190	.27	1206TF-3-.27-6-*	.570	.760	1.690
.33	1206TF-3-.33.5-*	.420	.580	1.190	.33	1206TF-3-.33.5-*	.540	.700	1.440	.33	1206TF-3-.33.5-*	.640	.830	1.690
.39	1206TF-3-.39-2-*	.460	.630	1.190	.39	1206TF-3-.39-4-*	.590	.760	1.440	.39	1206TF-3-.39-6-*	.700	.900	1.690
.47	1206TF-3-.47-2-*	.510	.680	1.190	.47	1206TF-3-.47-4-*	.570	.760	1.690	.47	1206TF-3-.47-6-*	.700	.900	1.940
.56	1206TF-3-.56-2-*	.490	.650	1.440	.56	1206TF-3-.56-4-*	.630	.830	1.690	.56	1206TF-3-.56-6-*	.780	.970	1.940
.68	1206TF-3-.68-2-*	.550	.710	1.440	.68	1206TF-3-.68-4-*	.700	.900	1.690	.68	1206TF-3-.68-6-*	.870	1.080	1.940
.82	1206TF-3-.82-2-*	.610	.780	1.440	.82	1206TF-3-.82-4-*	.710	.910	1.940	.82	1206TF-3-.82-6-*	.960	1.180	1.940
1.0	1206TF-3-1.0-2-*	.590	.790	1.690	1.0	1206TF-3-1.0-4-*	.790	.990	1.940	1.0	1206TF-3-1.0-6-*	.990	1.180	2.250
1.25	1206TF-3-1.25-2-*	.670	.870	1.690	1.25	1206TF-3-1.25-4-*	.900	1.100	1.440	1.25	1206TF-3-1.25-6-*	1.120	1.310	2.250
1.5	1206TF-3-1.5-2-*	.680	.870	1.690	1.5	1206TF-3-1.5-4-*	.920	1.100	2.250	1.5	1206TF-3-1.5-6-*	1.230	1.430	2.250
2.0	1206TF-3-2.0-2-*	.800	.990	1.940	2.0	1206TF-3-2.0-4-*	1.080	1.270	2.250					
3.0	1206TF-3-3.0-2-*	1.000	1.200	1.940										

* - Please insert appropriate tolerance code



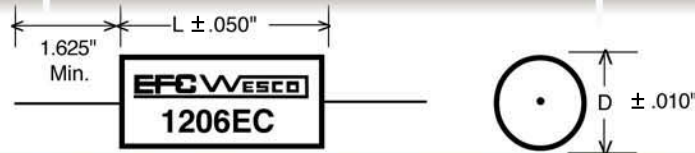
1206EC

Tubular Plastic Case
(Axial Leads)

Polypropylene and Foil Capacitors

Lead Spec.

Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG



Dimensions and Ratings

Cap.		50 VDC		
μF	Part #	D	L	
.001	1206EC-3-.001-0-*	.187	.375	
.0012	1206EC-3-.0012-0-*	.187	.375	
.0015	1206EC-3-.0015-0-*	.187	.375	
.0022	1206EC-3-.0022-0-*	.187	.375	
.0027	1206EC-3-.0027-0-*	.187	.375	
.0039	1206EC-3-.0039-0-*	.187	.375	
.0047	1206EC-3-.0047-0-*	.187	.375	
.0056	1206EC-3-.0056-0-*	.225	.375	
.0068	1206EC-3-.0068-0-*	.225	.375	
.0082	1206EC-3-.0082-0-*	.225	.375	
.01	1206EC-3-.01-0-*	.225	.500	
.012	1206EC-3-.012-0-*	.225	.500	
.015	1206EC-3-.015-0-*	.225	.500	
.018	1206EC-3-.018-0-*	.225	.500	
.022	1206EC-3-.022-0-*	.260	.550	
.027	1206EC-3-.027-0-*	.260	.550	
.033	1206EC-3-.033-0-*	.250	.625	
.039	1206EC-3-.039-0-*	.250	.625	
.047	1206EC-3-.047-0-*	.312	.625	
.056	1206EC-3-.056-0-*	.312	.625	
.068	1206EC-3-.068-0-*	.312	.625	
.082	1206EC-3-.082-0-*	.312	.750	
.1	1206EC-3-.1-0-*	.312	.750	
.12	1206EC-3-.12-0-*	.375	.750	
.15	1206EC-3-.15-0-*	.375	.750	
.18	1206EC-3-.18-0-*	.375	.875	
.22	1206EC-3-.22-0-*	.437	.875	
.27	1206EC-3-.27-0-*	.437	.875	
.33	1206EC-3-.33-0-*	.500	.875	
.39	1206EC-3-.39-0-*	.500	1.190	
.47	1206EC-3-.47-0-*	.500	1.190	

Cap.		100 VDC		
μF	Part #	D	L	
.001	1206EC-3-.001-1-*	.187	.375	
.0012	1206EC-3-.0012-1-*	.187	.375	
.0015	1206EC-3-.0015-1-*	.187	.375	
.0022	1206EC-3-.0022-1-*	.187	.375	
.0027	1206EC-3-.0027-1-*	.187	.375	
.0039	1206EC-3-.0039-1-*	.187	.375	
.0047	1206EC-3-.0047-1-*	.225	.375	
.0056	1206EC-3-.0056-1-*	.225	.375	
.0068	1206EC-3-.0068-1-*	.187	.500	
.0082	1206EC-3-.0082-1-*	.187	.500	
.01	1206EC-3-.01-1-*	.225	.500	
.012	1206EC-3-.012-1-*	.225	.500	
.015	1206EC-3-.015-1-*	.225	.500	
.018	1206EC-3-.018-1-*	.260	.550	
.022	1206EC-3-.022-1-*	.260	.550	
.027	1206EC-3-.027-1-*	.250	.625	
.033	1206EC-3-.033-1-*	.250	.625	
.039	1206EC-3-.039-1-*	.312	.625	
.047	1206EC-3-.047-1-*	.312	.625	
.056	1206EC-3-.056-1-*	.312	.625	
.068	1206EC-3-.068-1-*	.312	.750	
.082	1206EC-3-.082-1-*	.375	.750	
.1	1206EC-3-.1-1-*	.375	.750	
.12	1206EC-3-.12-1-*	.375	.750	
.15	1206EC-3-.15-1-*	.375	.875	
.18	1206EC-3-.18-1-*	.437	.875	
.22	1206EC-3-.22-1-*	.437	.875	
.27	1206EC-3-.27-1-*	.500	.875	
.33	1206EC-3-.33-1-*	.500	1.190	
.39	1206EC-3-.39-1-*	.500	1.190	

Cap.		160 VDC		
μF	Part #	D	L	
.001	1206EC-3-.001-1.6-*	.187	.375	
.0012	1206EC-3-.0012-1.6-*	.187	.375	
.0015	1206EC-3-.0015-1.6-*	.187	.375	
.0022	1206EC-3-.0022-1.6-*	.187	.375	
.0027	1206EC-3-.0027-1.6-*	.187	.375	
.0039	1206EC-3-.0039-1.6-*	.187	.375	
.0047	1206EC-3-.0047-1.6-*	.225	.375	
.0056	1206EC-3-.0056-1.6-*	.225	.375	
.0068	1206EC-3-.0068-1.6-*	.187	.500	
.0082	1206EC-3-.0082-1.6-*	.187	.500	
.01	1206EC-3-.01-1.6-*	.225	.500	
.012	1206EC-3-.012-1.6-*	.225	.500	
.015	1206EC-3-.015-1.6-*	.225	.500	
.018	1206EC-3-.018-1.6-*	.260	.550	
.022	1206EC-3-.022-1.6-*	.260	.550	
.027	1206EC-3-.027-1.6-*	.250	.625	
.033	1206EC-3-.033-1.6-*	.250	.625	
.039	1206EC-3-.039-1.6-*	.312	.625	
.047	1206EC-3-.047-1.6-*	.312	.625	
.056	1206EC-3-.056-1.6-*	.312	.625	
.068	1206EC-3-.068-1.6-*	.312	.750	
.082	1206EC-3-.082-1.6-*	.375	.750	
.1	1206EC-3-.1-1.6-*	.375	.750	
.12	1206EC-3-.12-1.6-*	.375	.750	
.15	1206EC-3-.15-1.6-*	.375	.875	
.18	1206EC-3-.18-1.6-*	.437	.875	
.22	1206EC-3-.22-1.6-*	.437	.875	
.27	1206EC-3-.27-1.6-*	.500	.875	
.33	1206EC-3-.33-1.6-*	.500	1.190	
.39	1206EC-3-.39-1.6-*	.500	1.190	

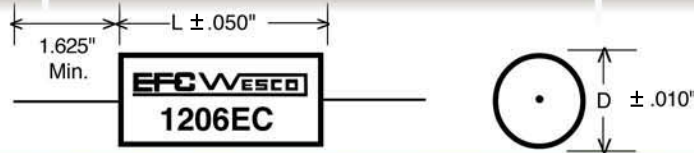
* - Please insert appropriate tolerance code



1206EC
Tubular Plastic Case
(Axial Leads)

**Polypropylene and
Foil Capacitors**

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG



Dimensions and Ratings

200 VDC			
Cap. μ F	Part #	D	L
.001	1206EC-3-.001-2-*	.187	.375
.0012	1206EC-3-.0012-2-*	.187	.375
.0015	1206EC-3-.0015-2-*	.187	.375
.0022	1206EC-3-.0022-2-*	.187	.375
.0027	1206EC-3-.0027-2-*	.225	.375
.0039	1206EC-3-.0039-2-*	.225	.375
.0047	1206EC-3-.0047-2-*	.225	.500
.0056	1206EC-3-.0056-2-*	.225	.500
.0068	1206EC-3-.0068-2-*	.225	.500
.0082	1206EC-3-.0082-2-*	.225	.500
.01	1206EC-3-.01-2-*	.260	.550
.012	1206EC-3-.012-2-*	.260	.550
.015	1206EC-3-.015-2-*	.250	.625
.018	1206EC-3-.018-2-*	.250	.625
.022	1206EC-3-.022-2-*	.312	.625
.027	1206EC-3-.027-2-*	.312	.625
.033	1206EC-3-.033-2-*	.312	.625
.039	1206EC-3-.039-2-*	.312	.625
.047	1206EC-3-.047-2-*	.312	.750
.056	1206EC-3-.056-2-*	.375	.750
.068	1206EC-3-.068-2-*	.375	.750
.082	1206EC-3-.082-2-*	.375	.875
.1	1206EC-3-.1-2-*	.437	.875
.12	1206EC-3-.12-2-*	.437	.875
.15	1206EC-3-.15-2-*	.500	.875
.18	1206EC-3-.18-2-*	.500	.875
.22	1206EC-3-.22-2-*	.500	1.190

400 VDC			
Cap. μ F	Part #	D	L
.001	1206EC-3-.001-4-*	.225	.375
.0012	1206EC-3-.0012-4-*	.225	.375
.0015	1206EC-3-.0015-4-*	.225	.375
.0022	1206EC-3-.0022-4-*	.187	.500
.0027	1206EC-3-.0027-4-*	.225	.500
.0039	1206EC-3-.0039-4-*	.225	.500
.0047	1206EC-3-.0047-4-*	.260	.550
.0056	1206EC-3-.0056-4-*	.260	.550
.0068	1206EC-3-.0068-4-*	.225	.625
.0082	1206EC-3-.0082-4-*	.250	.625
.01	1206EC-3-.01-4-*	.250	.625
.012	1206EC-3-.012-4-*	.312	.625
.015	1206EC-3-.015-4-*	.312	.625
.018	1206EC-3-.018-4-*	.312	.625
.022	1206EC-3-.022-4-*	.312	.750
.027	1206EC-3-.027-4-*	.375	.750
.033	1206EC-3-.033-4-*	.375	.750
.039	1206EC-3-.039-4-*	.375	.875
.047	1206EC-3-.047-4-*	.437	.875
.056	1206EC-3-.056-4-*	.437	.875
.068	1206EC-3-.068-4-*	.500	.875
.082	1206EC-3-.082-4-*	.500	.875
.1	1206EC-3-.1-4-*	.500	1.190
.12	1206EC-3-.12-4-*	.500	1.190

600 VDC			
Cap. μ F	Part #	D	L
.001	1206EC-3-.001-6-*	.225	.500
.0012	1206EC-3-.0012-6-*	.225	.500
.0015	1206EC-3-.0015-6-*	.225	.500
.0022	1206EC-3-.0022-6-*	.260	.550
.0027	1206EC-3-.0027-6-*	.260	.550
.0039	1206EC-3-.0039-6-*	.250	.625
.0047	1206EC-3-.0047-6-*	.250	.625
.0056	1206EC-3-.0056-6-*	.312	.625
.0068	1206EC-3-.0068-6-*	.312	.625
.0082	1206EC-3-.0082-6-*	.312	.625
.01	1206EC-3-.01-6-*	.312	.750
.012	1206EC-3-.012-6-*	.312	.750
.015	1206EC-3-.015-6-*	.375	.750
.018	1206EC-3-.018-6-*	.375	.750
.022	1206EC-3-.022-6-*	.375	.875
.027	1206EC-3-.027-6-*	.437	.875
.033	1206EC-3-.033-6-*	.437	.870
.039	1206EC-3-.039-6-*	.500	.875
.047	1206EC-3-.047-6-*	.500	.875
.056	1206EC-3-.056-6-*	.500	1.190
.068	1206EC-3-.068-6-*	.500	1.190

* - Please insert appropriate tolerance code



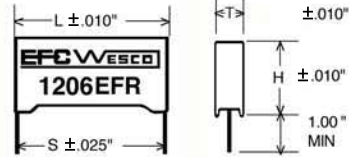
Please consult factory for special requirements, including non-standard values and sizes

1206EFR
Rectangular Plastic Case
(Radial Leads)

**Polypropylene and
Foil Capacitors**

Lead Specs -
Tinned Copperweld
B through E cases: 22 AWG
F through Q cases: 20 AWG

Dimensions and Ratings



63 VDC / 40 VAC					
Cap.	Part #	T in. (mm)	L in. (mm)	H in. (mm)	S in. (mm)
.001	1206EFR-B-.001-.63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0012	1206EFR-B-.0012-.63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0015	1206EFR-B-.0015-.63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0022	1206EFR-B-.0022-.63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0027	1206EFR-B-.0027-.63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0039	1206EFR-B-.0039-.63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0047	1206EFR-B-.0047-.63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0056	1206EFR-B-.0056-.63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0068	1206EFR-B-.0068-.63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0082	1206EFR-B-.0082-.63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.01	1206EFR-B-.01-.63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.012	1206EFR-C-.012-.63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.015	1206EFR-C-.015-.63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.018	1206EFR-C-.018-.63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.022	1206EFR-C-.022-.63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.027	1206EFR-D-.027-.63-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.033	1206EFR-D-.033-.63-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.039	1206EFR-E-.039-.63-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.047	1206EFR-E-.047-.63-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.056	1206EFR-E-.056-.63-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.068	1206EFR-G-.068-.63-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.082	1206EFR-G-.082-.63-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.1	1206EFR-H-.1-.63-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.12	1206EFR-H-.12-.63-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.15	1206EFR-J-.15-.63-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.15	1206EFR-L-.15-.63-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.18	1206EFR-K-.18-.63-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.18	1206EFR-M-.18-.63-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.22	1206EFR-N-.22-.63-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.27	1206EFR-N-.27-.63-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.33	1206EFR-O-.33-.63-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.39	1206EFR-O-.39-.63-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.47	1206EFR-P-.47-.63-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.56	1206EFR-P-.56-.63-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.68	1206EFR-P-.68-.63-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.82	1206EFR-Q-.82-.63-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)

160 VDC / 100 VAC					
Cap.	Part #	T in. (mm)	L in. (mm)	H in. (mm)	S in. (mm)
.001	1206EFR-B-.001-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0012	1206EFR-B-.0012-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0015	1206EFR-B-.0015-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0022	1206EFR-B-.0022-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0027	1206EFR-B-.0027-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0039	1206EFR-B-.0039-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0047	1206EFR-B-.0047-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0056	1206EFR-B-.0056-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0068	1206EFR-B-.0068-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0082	1206EFR-C-.0082-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.01	1206EFR-C-.01-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.012	1206EFR-C-.012-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.015	1206EFR-C-.015-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.018	1206EFR-C-.018-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.022	1206EFR-D-.022-1.6-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.027	1206EFR-D-.027-1.6-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.033	1206EFR-E-.033-1.6-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.039	1206EFR-E-.039-1.6-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.047	1206EFR-F-.047-1.6-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.056	1206EFR-G-.056-1.6-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.068	1206EFR-G-.068-1.6-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.082	1206EFR-H-.082-1.6-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.1	1206EFR-H-.1-1.6-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.12	1206EFR-J-.12-1.6-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.12	1206EFR-L-.12-1.6-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.15	1206EFR-K-.15-1.6-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.15	1206EFR-M-.15-1.6-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.18	1206EFR-N-.18-1.6-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.22	1206EFR-N-.22-1.6-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.27	1206EFR-O-.27-1.6-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.33	1206EFR-O-.33-1.6-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.39	1206EFR-P-.39-1.6-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.47	1206EFR-P-.47-1.6-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.56	1206EFR-Q-.56-1.6-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)
.68	1206EFR-Q-.68-1.6-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)

* - Please insert appropriate tolerance code



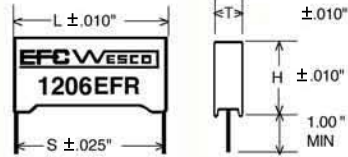
Please consult factory for special requirements, including non-standard values and sizes

1206EFR
Rectangular Plastic Case
(Radial Leads)

**Polypropylene and
Foil Capacitors**

**Lead Specs -
Tinned Copperweld**
B through E cases: 22 AWG
F through Q cases: 20 AWG

**Dimensions
and Ratings**



250 VDC / 160 VAC					
Cap.	Part #	T in. (mm)	L in. (mm)	H in. (mm)	S in. (mm)
.001	1206EFR-B-.001-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0012	1206EFR-B-.0012-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0015	1206EFR-B-.0015-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0022	1206EFR-B-.0022-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0027	1206EFR-B-.0027-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0039	1206EFR-B-.0039-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0047	1206EFR-C-.0047-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0056	1206EFR-C-.0056-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0068	1206EFR-C-.0068-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0082	1206EFR-C-.0082-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.01	1206EFR-C-.01-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.012	1206EFR-C-.012-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.015	1206EFR-D-.015-2.5-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.018	1206EFR-D-.018-2.5-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.022	1206EFR-E-.022-2.5-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.027	1206EFR-E-.027-2.5-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.033	1206EFR-G-.033-2.5-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.039	1206EFR-G-.039-2.5-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.047	1206EFR-H-.047-2.5-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.056	1206EFR-H-.056-2.5-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.068	1206EFR-J-.068-2.5-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.068	1206EFR-L-.068-2.5-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.082	1206EFR-K-.082-2.5-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.082	1206EFR-M-.082-2.5-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.1	1206EFR-K-.1-2.5-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.1	1206EFR-M-.1-2.5-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.12	1206EFR-N-.12-2.5-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.15	1206EFR-O-.15-2.5-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.18	1206EFR-O-.18-2.5-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.22	1206EFR-P-.22-2.5-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.27	1206EFR-P-.27-2.5-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.33	1206EFR-Q-.33-2.5-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.39	1206EFR-Q-.39-2.5-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)

400 VDC / 220 VAC					
Cap.	Part #	T in. (mm)	L in. (mm)	H in. (mm)	S in. (mm)
.001	1206EFR-B-.001-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0012	1206EFR-B-.0012-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0015	1206EFR-B-.0015-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0022	1206EFR-C-.0022-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0027	1206EFR-C-.0027-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0039	1206EFR-C-.0039-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0047	1206EFR-C-.0047-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0056	1206EFR-C-.0056-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0068	1206EFR-D-.0068-4-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.0082	1206EFR-E-.0082-4-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.01	1206EFR-E-.01-4-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.012	1206EFR-F-.012-4-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.015	1206EFR-G-.015-4-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.018	1206EFR-H-.018-4-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.022	1206EFR-H-.022-4-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.027	1206EFR-H-.027-4-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.033	1206EFR-J-.033-4-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.033	1206EFR-L-.033-4-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.039	1206EFR-K-.039-4-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.039	1206EFR-M-.039-4-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.047	1206EFR-K-.047-4-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.047	1206EFR-M-.047-4-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.056	1206EFR-N-.056-4-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.068	1206EFR-N-.068-4-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.082	1206EFR-O-.082-4-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.1	1206EFR-P-.1-4-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.12	1206EFR-P-.12-4-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.15	1206EFR-P-.15-4-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.18	1206EFR-Q-.18-4-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)
.22	1206EFR-Q-.22-4-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)

* - Please insert appropriate tolerance code



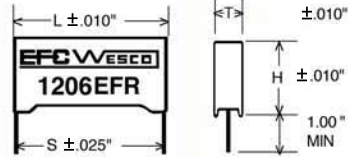
Please consult factory for special requirements, including non-standard values and sizes

1206EFR
Rectangular Plastic Case
(Radial Leads)

Polypropylene and Foil Capacitors

Lead Specs -
Tinned Copperweld
B through E cases: 22 AWG
F through Q cases: 20 AWG

Dimensions and Ratings



Cap.	630 VDC / 250 VAC				
μF	Part #	T in. (mm)	L in. (mm)	H in. (mm)	S in. (mm)
.001	1206EFR-C-.001-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0012	1206EFR-C-.0012-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0015	1206EFR-C-.0015-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0022	1206EFR-D-.0022-6.3-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.0027	1206EFR-D-.0027-6.3-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.0039	1206EFR-E-.0039-6.3-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.0047	1206EFR-F-.0047-6.3-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.0056	1206EFR-F-.0056-6.3-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.0068	1206EFR-G-.0068-6.3-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.0082	1206EFR-G-.0082-6.3-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.01	1206EFR-H-.01-6.3-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.012	1206EFR-H-.012-6.3-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.015	1206EFR-J-.015-6.3-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.015	1206EFR-L-.015-6.3-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.018	1206EFR-J-.018-6.3-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.018	1206EFR-L-.018-6.3-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.022	1206EFR-K-.022-6.3-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.022	1206EFR-M-.022-6.3-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.027	1206EFR-N-.027-6.3-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.033	1206EFR-N-.033-6.3-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.039	1206EFR-O-.039-6.3-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.047	1206EFR-O-.047-6.3-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.056	1206EFR-P-.056-6.3-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.068	1206EFR-P-.068-6.3-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.082	1206EFR-P-.082-6.3-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.1	1206EFR-Q-.1-6.3-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)
.12	1206EFR-Q-.12-6.3-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)

* - Please insert appropriate tolerance code



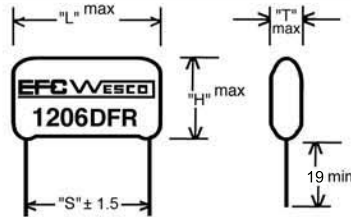
Please consult factory for special requirements, including non-standard values and sizes

1206DFR Epoxy Dipped (Radial Leads)

Polypropylene and Foil Capacitors

Lead Specs -
Tinned Copperweld

L	S	DIA
10.5	7.5	0.6
13.0	10.0	0.6
18.5	15.0	0.8
26.0	22.0	0.8
31.0	27.0	0.8
36.0	32.0	0.8
44.0	38.0	0.8



All dimensions
in mm

Dimensions and Ratings

Cap.	63 VDC			
μF	Part #	T	H	L
.01	1206DFR-2-.01-.63-*	4.5	8.0	10.5
.012	1206DFR-2-.012-.63-*	4.5	8.0	10.5
.015	1206DFR-2-.015-.63-*	4.5	8.0	10.5
.018	1206DFR-2-.018-.63-*	5.0	9.0	10.5
.022	1206DFR-2-.022-.63-*	5.5	10.0	10.5
.027	1206DFR-2-.027-.63-*	6.0	11.0	10.5
.033	1206DFR-2-.033-.63-*	6.5	11.5	10.5
.039	1206DFR-2-.039-.63-*	5.5	11.0	13.0
.047	1206DFR-2-.047-.63-*	6.0	12.0	13.0
.056	1206DFR-2-.056-.63-*	6.5	13.0	13.0
.068	1206DFR-2-.068-.63-*	7.0	14.0	13.0
.082	1206DFR-2-.082-.63-*	6.0	12.0	18.5
.1	1206DFR-2-.1-.63-*	6.5	12.5	18.5
.12	1206DFR-2-.12-.63-*	7.0	13.0	18.5
.15	1206DFR-2-.15-.63-*	8.0	14.0	18.5
.18	1206DFR-2-.18-.63-*	8.5	15.5	18.5
.22	1206DFR-2-.22-.63-*	9.0	16.5	18.5
.27	1206DFR-2-.27-.63-*	9.5	18.0	18.5
.33	1206DFR-2-.33-.63-*	10.5	20.0	18.5
.39	1206DFR-2-.39-.63-*	11.5	22.0	18.5
.47	1206DFR-2-.47-.63-*	12.5	24.0	18.5

Cap.	100 VDC			
μF	Part #	T	H	L
.001	1206DFR-3-.001-1-*	4.0	8.0	10.5
.0012	1206DFR-3-.0012-1-*	4.0	8.0	10.5
.0015	1206DFR-3-.0015-1-*	4.0	8.0	10.5
.0022	1206DFR-3-.0022-1-*	4.0	8.0	10.5
.0027	1206DFR-3-.0027-1-*	4.0	8.0	10.5
.0039	1206DFR-3-.0039-1-*	4.0	8.0	10.5
.0047	1206DFR-3-.0047-1-*	4.0	8.0	10.5
.0056	1206DFR-3-.0056-1-*	4.0	8.0	10.5
.0068	1206DFR-3-.0068-1-*	4.0	8.0	10.5
.0082	1206DFR-3-.0082-1-*	4.0	8.0	10.5
.01	1206DFR-3-.01-1-*	4.0	8.5	10.5
.012	1206DFR-3-.012-1-*	4.5	8.5	10.5
.015	1206DFR-3-.015-1-*	4.5	9.0	10.5
.018	1206DFR-3-.018-1-*	4.0	8.5	13.0
.022	1206DFR-3-.022-1-*	4.5	9.0	13.0
.027	1206DFR-3-.027-1-*	5.0	9.0	13.0
.033	1206DFR-3-.033-1-*	5.0	10.0	13.0
.039	1206DFR-3-.039-1-*	5.5	11.0	13.0
.047	1206DFR-3-.047-1-*	6.0	12.0	13.0
.056	1206DFR-3-.056-1-*	5.0	10.0	18.5
.068	1206DFR-3-.068-1-*	5.5	11.0	18.5
.082	1206DFR-3-.082-1-*	6.0	12.0	18.5
.1	1206DFR-3-.1-1-*	6.5	12.5	18.5
.12	1206DFR-3-.12-1-*	7.0	13.0	18.5
.15	1206DFR-3-.15-1-*	8.0	14.0	18.5
.18	1206DFR-3-.18-1-*	8.5	15.0	18.5
.22	1206DFR-3-.22-1-*	7.5	14.0	26.0
.27	1206DFR-3-.27-1-*	8.5	15.0	26.0
.33	1206DFR-3-.33-1-*	9.0	16.5	26.0
.39	1206DFR-3-.39-1-*	9.5	17.0	26.0
.47	1206DFR-3-.47-1-*	10.0	20.0	26.0
.56	1206DFR-3-.56-1-*	9.5	18.0	31.0
.68	1206DFR-3-.68-1-*	10.5	20.0	31.0
.82	1206DFR-3-.82-1-*	11.5	21.0	31.0
1.0	1206DFR-3-1.0-1-*	13.0	24.0	31.0

Cap.	160 VDC			
μF	Part #	T	H	L
.001	1206DFR-3-.001-1.6-*	4.0	8.0	10.5
.0012	1206DFR-3-.0012-1.6-*	4.0	8.0	10.5
.0015	1206DFR-3-.0015-1.6-*	4.0	8.0	10.5
.0022	1206DFR-3-.0022-1.6-*	4.0	8.0	10.5
.0027	1206DFR-3-.0027-1.6-*	4.0	8.0	10.5
.0039	1206DFR-3-.0039-1.6-*	4.0	8.0	10.5
.0047	1206DFR-3-.0047-1.6-*	4.0	8.0	10.5
.0056	1206DFR-3-.0056-1.6-*	4.0	8.0	10.5
.0068	1206DFR-3-.0068-1.6-*	4.0	8.5	10.5
.0082	1206DFR-3-.0082-1.6-*	4.0	9.0	10.5
.01	1206DFR-3-.01-1.6-*	4.5	9.0	10.5
.012	1206DFR-3-.012-1.6-*	4.5	9.0	13.0
.015	1206DFR-3-.015-1.6-*	5.0	9.0	13.0
.018	1206DFR-3-.018-1.6-*	5.0	10.0	13.0
.022	1206DFR-3-.022-1.6-*	5.5	11.0	13.0
.027	1206DFR-3-.027-1.6-*	6.0	12.0	13.0
.033	1206DFR-3-.033-1.6-*	6.5	12.5	13.0
.039	1206DFR-3-.039-1.6-*	5.5	11.0	18.5
.047	1206DFR-3-.047-1.6-*	6.0	12.0	18.5
.056	1206DFR-3-.056-1.6-*	5.0	12.5	18.5
.068	1206DFR-3-.068-1.6-*	7.0	13.0	18.5
.082	1206DFR-3-.082-1.6-*	7.5	13.5	18.5
.1	1206DFR-3-.1-1.6-*	8.0	14.0	18.5
.12	1206DFR-3-.12-1.6-*	8.5	15.0	18.5
.15	1206DFR-3-.15-1.6-*	8.0	14.0	26.0
.18	1206DFR-3-.18-1.6-*	8.5	15.0	26.0
.22	1206DFR-3-.22-1.6-*	9.0	16.5	26.0
.27	1206DFR-3-.27-1.6-*	10.0	19.0	26.0
.33	1206DFR-3-.33-1.6-*	9.5	17.0	31.0
.39	1206DFR-3-.39-1.6-*	10.5	20.0	31.0
.47	1206DFR-3-.47-1.6-*	11.5	21.0	31.0
.56	1206DFR-3-.56-1.6-*	12.5	22.0	31.0
.68	1206DFR-3-.68-1.6-*	13.5	24.0	31.0
.82	1206DFR-3-.82-1.6-*	13.5	24.0	36.0
1.0	1206DFR-3-1.0-1.6-*	15.0	27.0	36.0

* - Please insert appropriate tolerance code



Please consult factory for special requirements, including non-standard values and sizes

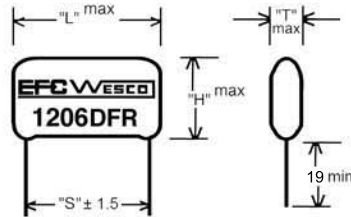
1206DFR

Epoxy Dipped (Radial Leads)

Polypropylene and Foil Capacitors

Lead Specs -
Tinned Copperweld

L	S	DIA
10.5	7.5	0.6
13.0	10.0	0.6
18.5	15.0	0.8
26.0	22.0	0.8
31.0	27.0	0.8
36.0	32.0	0.8
44.0	38.0	0.8



All dimensions
in mm

Dimensions and Ratings

Cap.		250 VDC			
μF	Part #	T	H	L	
.001	1206DFR-3-.001-2.5-*	4.0	8.0	10.5	
.0012	1206DFR-3-.0012-2.5-*	4.0	8.0	10.5	
.0015	1206DFR-3-.0015-2.5-*	4.0	8.0	10.5	
.0022	1206DFR-3-.0022-2.5-*	4.0	8.0	10.5	
.0027	1206DFR-3-.0027-2.5-*	4.0	8.0	10.5	
.0039	1206DFR-3-.0039-2.5-*	4.0	8.0	10.5	
.0047	1206DFR-3-.0047-2.5-*	4.0	8.5	10.5	
.0056	1206DFR-3-.0056-2.5-*	4.5	9.0	10.5	
.0068	1206DFR-3-.0068-2.5-*	4.5	9.5	10.5	
.0082	1206DFR-3-.0082-2.5-*	4.5	9.0	13.0	
.01	1206DFR-3-.01-2.5-*	5.0	10.0	13.0	
.012	1206DFR-3-.012-2.5-*	5.5	11.0	13.0	
.015	1206DFR-3-.015-2.5-*	6.0	12.0	13.0	
.018	1206DFR-3-.018-2.5-*	6.5	12.0	13.0	
.022	1206DFR-3-.022-2.5-*	6.5	12.5	13.0	
.027	1206DFR-3-.027-2.5-*	5.5	11.0	18.5	
.033	1206DFR-3-.033-2.5-*	6.0	12.0	18.5	
.039	1206DFR-3-.039-2.5-*	6.5	12.5	18.5	
.047	1206DFR-3-.047-2.5-*	7.0	13.0	18.5	
.056	1206DFR-3-.056-2.5-*	7.5	13.5	18.5	
.068	1206DFR-3-.068-2.5-*	8.0	14.0	18.5	
.082	1206DFR-3-.082-2.5-*	8.5	15.0	18.5	
.1	1206DFR-3-.1-2.5-*	8.0	14.0	26.0	
.12	1206DFR-3-.12-2.5-*	8.5	15.0	26.0	
.15	1206DFR-3-.15-2.5-*	9.0	16.5	26.0	
.18	1206DFR-3-.18-2.5-*	9.5	18.0	31.0	
.22	1206DFR-3-.22-2.5-*	9.5	18.0	31.0	
.27	1206DFR-3-.27-2.5-*	10.0	19.0	31.0	
.33	1206DFR-3-.33-2.5-*	11.5	21.0	31.0	
.39	1206DFR-3-.39-2.5-*	10.5	22.0	31.0	
.47	1206DFR-3-.47-2.5-*	13.5	24.0	31.0	
.56	1206DFR-3-.56-2.5-*	13.5	24.0	36.0	
.68	1206DFR-3-.68-2.5-*	15.5	28.0	36.0	
.82	1206DFR-3-.82-2.5-*	14.0	25.0	44.0	
1.0	1206DFR-3-1.0-2.5-*	16.0	28.0	44.0	

Cap.		400 VDC			
μF	Part #	T	H	L	
.001	1206DFR-3-.001-4-*	4.0	8.0	10.5	
.0012	1206DFR-3-.0012-4-*	4.0	8.0	10.5	
.0015	1206DFR-3-.0015-4-*	4.0	8.0	10.5	
.0022	1206DFR-3-.0022-4-*	4.0	8.5	10.5	
.0027	1206DFR-3-.0027-4-*	4.0	9.0	10.5	
.0039	1206DFR-3-.0039-4-*	4.5	9.0	13.0	
.0047	1206DFR-3-.0047-4-*	5.0	9.5	13.0	
.0056	1206DFR-3-.0056-4-*	5.0	10.0	13.0	
.0068	1206DFR-3-.0068-4-*	5.5	11.0	13.0	
.0082	1206DFR-3-.0082-4-*	6.0	12.0	13.0	
.01	1206DFR-3-.01-4-*	6.5	12.5	13.0	
.012	1206DFR-3-.012-4-*	5.0	10.0	18.5	
.015	1206DFR-3-.015-4-*	5.5	11.0	18.5	
.018	1206DFR-3-.018-4-*	6.0	12.0	18.5	
.022	1206DFR-3-.022-4-*	6.5	12.5	18.5	
.027	1206DFR-3-.027-4-*	7.5	14.0	18.5	
.033	1206DFR-3-.033-4-*	8.5	15.0	18.5	
.039	1206DFR-3-.039-4-*	7.0	13.0	26.0	
.047	1206DFR-3-.047-4-*	7.5	14.0	26.0	
.056	1206DFR-3-.056-4-*	8.0	15.0	26.0	
.068	1206DFR-3-.068-4-*	8.5	16.0	26.0	
.082	1206DFR-3-.082-4-*	9.5	18.0	31.0	
.1	1206DFR-3-.1-4-*	9.5	17.0	31.0	
.12	1206DFR-3-.12-4-*	10.0	19.0	31.0	
.15	1206DFR-3-.15-4-*	10.5	20.0	31.0	
.18	1206DFR-3-.18-4-*	11.5	21.0	31.0	
.22	1206DFR-3-.22-4-*	13.0	23.0	31.0	
.27	1206DFR-3-.27-4-*	13.0	23.0	36.0	
.33	1206DFR-3-.33-4-*	14.0	25.0	36.0	
.39	1206DFR-3-.39-4-*	13.5	24.0	44.0	
.47	1206DFR-3-.47-4-*	15.0	27.0	44.0	

Cap.		630 VDC			
μF	Part #	T	H	L	
.001	1206DFR-3-.001-6.3-*	4.5	8.5	10.5	
.0012	1206DFR-3-.0012-6.3-*	4.5	8.5	10.5	
.0015	1206DFR-3-.0015-6.3-*	4.5	9.0	10.5	
.0022	1206DFR-3-.0022-6.3-*	5.0	9.5	13.0	
.0027	1206DFR-3-.0027-6.3-*	5.0	10.0	13.0	
.0039	1206DFR-3-.0039-6.3-*	6.0	12.0	13.0	
.0047	1206DFR-3-.0047-6.3-*	6.5	12.5	13.0	
.0056	1206DFR-3-.0056-6.3-*	5.0	9.5	18.5	
.0068	1206DFR-3-.0068-6.3-*	5.0	10.0	18.5	
.0082	1206DFR-3-.0082-6.3-*	5.5	11.0	18.5	
.01	1206DFR-3-.01-6.3-*	6.0	12.0	18.5	
.012	1206DFR-3-.012-6.3-*	6.5	12.5	18.5	
.015	1206DFR-3-.015-6.3-*	7.0	13.0	18.5	
.018	1206DFR-3-.018-6.3-*	7.5	13.5	18.5	
.022	1206DFR-3-.022-6.3-*	8.0	14.0	18.5	
.027	1206DFR-3-.027-6.3-*	7.5	14.0	26.0	
.033	1206DFR-3-.033-6.3-*	8.0	15.0	26.0	
.039	1206DFR-3-.039-6.3-*	8.5	16.0	26.0	
.047	1206DFR-3-.047-6.3-*	9.5	17.0	26.0	
.056	1206DFR-3-.056-6.3-*	10.0	19.0	26.0	
.068	1206DFR-3-.068-6.3-*	10.0	19.0	31.0	
.082	1206DFR-3-.082-6.3-*	9.5	18.0	31.0	
.1	1206DFR-3-.1-6.3-*	10.5	20.0	31.0	
.12	1206DFR-3-.12-6.3-*	12.0	22.0	31.0	
.15	1206DFR-3-.15-6.3-*	13.0	24.0	31.0	
.18	1206DFR-3-.18-6.3-*	13.0	24.0	36.0	
.22	1206DFR-3-.22-6.3-*	14.5	26.0	36.0	
.27	1206DFR-3-.27-6.3-*	14.0	25.5	44.0	
.33	1206DFR-3-.33-6.3-*	16.0	28.0	44.0	
.39	1206DFR-3-.39-6.3-*	17.0	32.0	44.0	
.47	1206DFR-3-.47-6.3-*	18.0	34.0	44.0	

* - Please insert appropriate tolerance code



Please consult factory for special requirements, including non-standard values and sizes

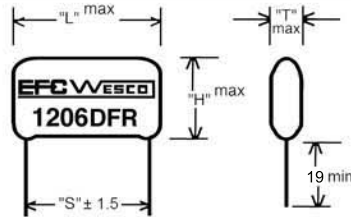
1206DFR

Epoxy Dipped (Radial Leads)

Polypropylene and Foil Capacitors

Lead Specs -
Tinned Copperweld

L	S	DIA
10.5	7.5	0.6
13.0	10.0	0.6
18.5	15.0	0.8
26.0	22.0	0.8
31.0	27.0	0.8
36.0	32.0	0.8
44.0	38.0	0.8



All dimensions
in mm

Dimensions and Ratings

Cap.	1000 VDC			
μF	Part #	T	H	L
.001	1206DFR-3-.001-10-*	5.0	10.0	13.0
.0012	1206DFR-3-.0012-10-*	5.0	10.0	13.0
.0015	1206DFR-3-.0015-10-*	5.5	11.0	13.0
.0022	1206DFR-3-.0022-10-*	6.0	12.0	13.0
.0027	1206DFR-3-.0027-10-*	5.0	9.5	18.5
.0039	1206DFR-3-.0039-10-*	5.5	11.0	18.5
.0047	1206DFR-3-.0047-10-*	6.0	12.0	18.5
.0056	1206DFR-3-.0056-10-*	6.5	12.5	18.5
.0068	1206DFR-3-.0068-10-*	7.0	13.0	18.5
.0082	1206DFR-3-.0082-10-*	7.5	14.0	18.5
.01	1206DFR-3-.01-10-*	9.5	17.0	18.5
.012	1206DFR-3-.012-10-*	7.5	14.0	26.0
.015	1206DFR-3-.015-10-*	8.5	15.0	26.0
.018	1206DFR-3-.018-10-*	8.5	16.0	26.0
.022	1206DFR-3-.022-10-*	9.0	17.0	26.0
.027	1206DFR-3-.027-10-*	9.5	18.0	26.0
.033	1206DFR-3-.033-10-*	9.5	18.0	31.0
.039	1206DFR-3-.039-10-*	10.0	19.0	31.0
.047	1206DFR-3-.047-10-*	11.0	20.0	31.0
.056	1206DFR-3-.056-10-*	12.0	22.0	31.0
.068	1206DFR-3-.068-10-*	13.0	24.0	31.0
.082	1206DFR-3-.082-10-*	12.0	22.0	36.0
.1	1206DFR-3-.1-10-*	13.0	24.0	36.0
.12	1206DFR-3-.12-10-*	13.5	25.0	44.0
.15	1206DFR-3-.15-10-*	15.0	27.0	44.0
.18	1206DFR-3-.18-10-*	16.5	30.0	44.0
.22	1206DFR-3-.22-10-*	18.0	34.0	44.0

* - Please insert appropriate tolerance code

Series 1213

Metallized Polypropylene

Features: Flame retardant to UL94, excellent long term stability, self healing, high insulation resistance, low dissipation factor, high frequency operation.

Applications: Timing circuits, switch mode power supplies (SMPS).

Packaging: Axial wrap and fill (TF, TC), radial lead box (EFR), axial lead epoxy tube (EC).

Specifications

1) Temperature Range

-55°C to +105°C at rated voltage.

2) Capacitance

0.001µF to 20µF

3) Dielectric Strength

At 25°C, 150% of rated voltage when applied terminal to terminal for one minute through a current limiting resistance.

4) Insulation Resistance

At 25°C after 2 minutes charge time at rated voltage or 500 VDC, whichever is less, the minimum IR shall be 80,000 Megohm-Microfarads, but need not exceed 120,000 Megohms.

5) Humidity Resistance

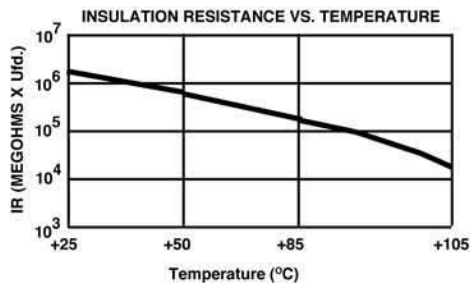
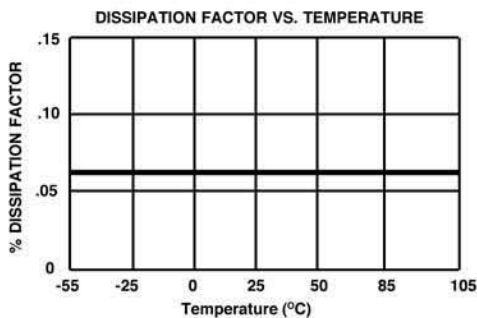
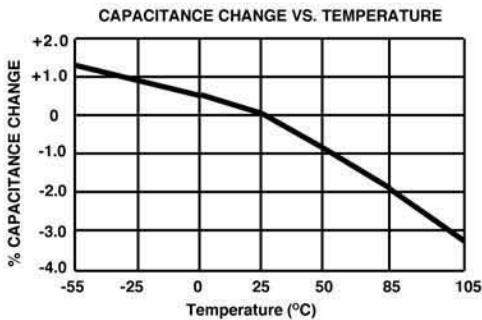
Series 1213 shall meet the requirements of MIL-STD. 202, Method 103B.

6) Dissipation Factor

Shall be 0.1% max. when measured at 1 KHz and 25°C.

7) Life Test

Will withstand the application of 150% rated voltage at + 85°C for 250 hours with not more than one failure in 12 permitted.



Typical Temperature Curves Metallized Polypropylene



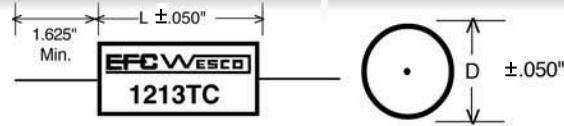
Please consult factory for special requirements, including non-standard values and sizes

1213TC Tubular Wrap & Fill

Metallized Polypropylene Capacitors

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG

Dimensions and Ratings



Cap.	50 VDC		
µF	Part #	D	L
.001	1213TC-3-.001-0-*	.160	.406
.0012	1213TC-3-.0012-0-*	.160	.406
.0015	1213TC-3-.0015-0-*	.160	.406
.0022	1213TC-3-.0022-0-*	.160	.406
.0027	1213TC-3-.0027-0-*	.160	.406
.0039	1213TC-3-.0039-0-*	.160	.406
.0047	1213TC-3-.0047-0-*	.160	.406
.0056	1213TC-3-.0056-0-*	.160	.406
.0068	1213TC-3-.0068-0-*	.160	.406
.0082	1213TC-3-.0082-0-*	.160	.406
.01	1213TC-3-.01-0-*	.160	.406
.012	1213TC-3-.012-0-*	.160	.406
.015	1213TC-3-.015-0-*	.160	.406
.018	1213TC-3-.018-0-*	.160	.406
.022	1213TC-3-.022-0-*	.160	.406
.027	1213TC-3-.027-0-*	.170	.406
.033	1213TC-3-.033-0-*	.180	.406
.039	1213TC-3-.039-0-*	.200	.406
.047	1213TC-3-.047-0-*	.210	.406
.056	1213TC-3-.056-0-*	.230	.406
.068	1213TC-3-.068-0-*	.250	.406
.082	1213TC-3-.082-0-*	.190	.531
.1	1213TC-3-.1-0-*	.210	.531
.12	1213TC-3-.12-0-*	.220	.531
.15	1213TC-3-.15-0-*	.250	.531
.18	1213TC-3-.18-0-*	.270	.531
.22	1213TC-3-.22-0-*	.300	.531
.27	1213TC-3-.27-0-*	.260	.656
.33	1213TC-3-.33-0-*	.290	.656
.39	1213TC-3-.39-0-*	.310	.656
.47	1213TC-3-.47-0-*	.340	.656
.56	1213TC-3-.56-0-*	.320	.781
.68	1213TC-3-.68-0-*	.350	.781
.82	1213TC-3-.82-0-*	.390	.781
1.0	1213TC-3-1.0-0-*	.420	.781
1.25	1213TC-3-1.2-0-*	.420	.906
1.5	1213TC-3-1.5-0-*	.460	.906
2.0	1213TC-3-2.0-0-*	.450	1.190
3.0	1213TC-3-3.0-0-*	.550	1.190
4.0	1213TC-3-4.0-0-*	.630	1.190
5.0	1213TC-3-5.0-0-*	.620	1.440
6.0	1213TC-3-6.0-0-*	.680	1.440

Cap.	100 VDC		
µF	Part #	D	L
.001	1213TC-3-.001-1-*	.180	.406
.0012	1213TC-3-.0012-1-*	.180	.406
.0015	1213TC-3-.0015-1-*	.180	.406
.0022	1213TC-3-.0022-1-*	.180	.406
.0027	1213TC-3-.0027-1-*	.180	.406
.0039	1213TC-3-.0039-1-*	.180	.406
.0047	1213TC-3-.0047-1-*	.180	.406
.0056	1213TC-3-.0056-1-*	.180	.406
.0068	1213TC-3-.0068-1-*	.180	.406
.0082	1213TC-3-.0082-1-*	.180	.406
.01	1213TC-3-.01-1-*	.180	.406
.012	1213TC-3-.012-1-*	.180	.406
.015	1213TC-3-.015-1-*	.180	.406
.018	1213TC-3-.018-1-*	.180	.406
.022	1213TC-3-.022-1-*	.180	.406
.027	1213TC-3-.027-1-*	.200	.406
.033	1213TC-3-.033-1-*	.220	.406
.039	1213TC-3-.039-1-*	.240	.406
.047	1213TC-3-.047-1-*	.180	.531
.056	1213TC-3-.056-1-*	.190	.531
.068	1213TC-3-.068-1-*	.210	.531
.082	1213TC-3-.082-1-*	.220	.531
.1	1213TC-3-.1-1-*	.250	.531
.12	1213TC-3-.12-1-*	.270	.531
.15	1213TC-3-.15-1-*	.300	.531
.18	1213TC-3-.18-1-*	.260	.656
.22	1213TC-3-.22-1-*	.290	.656
.27	1213TC-3-.27-1-*	.320	.656
.33	1213TC-3-.33-1-*	.350	.656
.39	1213TC-3-.39-1-*	.330	.781
.47	1213TC-3-.47-1-*	.360	.781
.56	1213TC-3-.56-1-*	.390	.781
.68	1213TC-3-.68-1-*	.390	.906
.82	1213TC-3-.82-1-*	.420	.906
1.0	1213TC-3-1.0-1-*	.460	.906
1.25	1213TC-3-1.2-1-*	.440	1.190
1.5	1213TC-3-1.5-1-*	.480	1.190
2.0	1213TC-3-2.0-1-*	.550	1.190
3.0	1213TC-3-3.0-1-*	.590	1.440
4.0	1213TC-3-4.0-1-*	.680	1.440
5.0	1213TC-3-5.0-1-*	.760	1.440
6.0	1213TC-3-6.0-1-*	.790	1.570
8.0	1213TC-3-8.0-1-*	.910	1.570
10.0	1213TC-3-10.0-1-*	.970	1.690
12.0	1213TC-3-12.0-1-*	.970	1.940
15.0	1213TC-3-15.0-1-*	1.080	1.940
20.0	1213TC-3-20.0-1-*	1.160	2.250

Cap.	160 VDC		
µF	Part #	D	L
.001	1213TC-3-.001-1.6-*	.180	.406
.0012	1213TC-3-.0012-1.6-*	.180	.406
.0015	1213TC-3-.0015-1.6-*	.180	.406
.0022	1213TC-3-.0022-1.6-*	.180	.406
.0027	1213TC-3-.0027-1.6-*	.180	.406
.0039	1213TC-3-.0039-1.6-*	.180	.406
.0047	1213TC-3-.0047-1.6-*	.180	.406
.0056	1213TC-3-.0056-1.6-*	.180	.406
.0068	1213TC-3-.0068-1.6-*	.180	.406
.0082	1213TC-3-.0082-1.6-*	.180	.406
.01	1213TC-3-.01-1.6-*	.180	.406
.012	1213TC-3-.012-1.6-*	.180	.406
.015	1213TC-3-.015-1.6-*	.180	.406
.018	1213TC-3-.018-1.6-*	.180	.406
.022	1213TC-3-.022-1.6-*	.180	.406
.027	1213TC-3-.027-1.6-*	.200	.406
.033	1213TC-3-.033-1.6-*	.220	.406
.039	1213TC-3-.039-1.6-*	.240	.406
.047	1213TC-3-.047-1.6-*	.180	.531
.056	1213TC-3-.056-1.6-*	.190	.531
.068	1213TC-3-.068-1.6-*	.210	.531
.082	1213TC-3-.082-1.6-*	.220	.531
.1	1213TC-3-.1-1.6-*	.250	.531
.12	1213TC-3-.12-1.6-*	.270	.531
.15	1213TC-3-.15-1.6-*	.300	.531
.18	1213TC-3-.18-1.6-*	.260	.656
.22	1213TC-3-.22-1.6-*	.290	.656
.27	1213TC-3-.27-1.6-*	.320	.656
.33	1213TC-3-.33-1.6-*	.350	.656
.39	1213TC-3-.39-1.6-*	.330	.781
.47	1213TC-3-.47-1.6-*	.360	.781
.56	1213TC-3-.56-1.6-*	.390	.781
.68	1213TC-3-.68-1.6-*	.390	.906
.82	1213TC-3-.82-1.6-*	.420	.906
1.0	1213TC-3-1.0-1.6-*	.460	.906
1.25	1213TC-3-1.25-1.6-*	.440	1.190
1.5	1213TC-3-1.5-1.6-*	.480	1.190
2.0	1213TC-3-2.0-1.6-*	.550	1.190
3.0	1213TC-3-3.0-1.6-*	.590	1.440
4.0	1213TC-3-4.0-1.6-*	.680	1.440
5.0	1213TC-3-5.0-1.6-*	.760	1.440
6.0	1213TC-3-6.0-1.6-*	.790	1.570
8.0	1213TC-3-8.0-1.6-*	.910	1.570
10.0	1213TC-3-10.0-1.6-*	.970	1.690
12.0	1213TC-3-12.0-1.6-*	.970	1.940
15.0	1213TC-3-15.0-1.6-*	1.080	1.940
20.0	1213TC-3-20.0-1.6-*	1.160	2.250

* - Please insert appropriate tolerance code



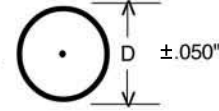
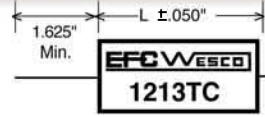
Please consult factory for special requirements, including non-standard values and sizes

1213TC Tubular Wrap & Fill

Metallized Polypropylene Capacitors

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG

Dimensions and Ratings



Cap.	200 VDC		
µF	Part #	D	L
.001	1213TC-3-.001-2-*	.180	.406
.0012	1213TC-3-.0012-2-	.180	.406
.0015	1213TC-3-.0015-2-	.180	.406
.0022	1213TC-3-.0022-2-	.180	.406
.0027	1213TC-3-.0027-2-	.180	.406
.0039	1213TC-3-.0039-2-	.180	.406
.0047	1213TC-3-.0047-2-	.180	.406
.0056	1213TC-3-.0056-2-	.180	.406
.0068	1213TC-3-.0068-2-	.180	.406
.0082	1213TC-3-.0082-2-	.180	.406
.01	1213TC-3-.01-2-*	.180	.406
.012	1213TC-3-.012-2-*	.180	.406
.015	1213TC-3-.015-2-*	.180	.406
.018	1213TC-3-.018-2-*	.200	.406
.022	1213TC-3-.022-2-*	.210	.406
.027	1213TC-3-.027-2-*	.230	.406
.033	1213TC-3-.033-2-*	.180	.531
.039	1213TC-3-.039-2-*	.190	.531
.047	1213TC-3-.047-2-*	.210	.531
.056	1213TC-3-.056-2-*	.220	.531
.068	1213TC-3-.068-2-*	.240	.531
.082	1213TC-3-.082-2-*	.270	.531
.1	1213TC-3-.1-2-*	.290	.531
.12	1213TC-3-.12-2-*	.260	.656
.15	1213TC-3-.15-2-*	.290	.656
.18	1213TC-3-.18-2-*	.310	.656
.22	1213TC-3-.22-2-*	.340	.656
.27	1213TC-3-.27-2-*	.330	.781
.33	1213TC-3-.33-2-*	.360	.781
.39	1213TC-3-.39-2-*	.390	.781
.47	1213TC-3-.47-2-*	.380	.906
.56	1213TC-3-.56-2-*	.420	.906
.68	1213TC-3-.68-2-*	.460	.906
.82	1213TC-3-.82-2-*	.500	.906
1.0	1213TC-3-1.0-2-*	.470	1.190
1.25	1213TC-3-1.2-2-*	.530	1.190
1.5	1213TC-3-1.5-2-*	.570	1.190
2.0	1213TC-3-2.0-2-*	.580	1.440
3.0	1213TC-3-3.0-2-*	.710	1.440
4.0	1213TC-3-4.0-2-*	.770	1.570
5.0	1213TC-3-5.0-2-*	.860	1.570
6.0	1213TC-3-6.0-2-*	.900	1.690
8.0	1213TC-3-8.0-2-*	.950	1.940
10.0	1213TC-3-10.0-2-*	1.060	1.940
12.0	1213TC-3-12.0-2-*	1.080	2.250
15.0	1213TC-3-15.0-2-*	1.210	2.250

Cap.	400 VDC		
µF	Part #	D	L
.001	1213TC-3-.001-4-*	.180	.406
.0012	1213TC-3-.0012-4-	.180	.406
.0015	1213TC-3-.0015-4-	.180	.406
.0022	1213TC-3-.0022-4-	.180	.406
.0027	1213TC-3-.0027-4-	.180	.406
.0039	1213TC-3-.0039-4-	.180	.406
.0047	1213TC-3-.0047-4-	.180	.406
.0056	1213TC-3-.0056-4-	.180	.406
.0068	1213TC-3-.0068-4-	.180	.406
.0082	1213TC-3-.0082-4-	.180	.406
.01	1213TC-3-.01-4-*	.190	.406
.012	1213TC-3-.012-4-*	.210	.406
.015	1213TC-3-.015-4-*	.230	.406
.018	1213TC-3-.018-4-*	.250	.406
.022	1213TC-3-.022-4-*	.190	.531
.027	1213TC-3-.027-4-*	.210	.531
.033	1213TC-3-.033-4-*	.230	.531
.039	1213TC-3-.039-4-*	.250	.531
.047	1213TC-3-.047-4-*	.270	.531
.056	1213TC-3-.056-4-*	.290	.531
.068	1213TC-3-.068-4-*	.260	.656
.082	1213TC-3-.082-4-*	.280	.656
.1	1213TC-3-.1-4-*	.310	.656
.12	1213TC-3-.12-4-*	.340	.656
.15	1213TC-3-.15-4-*	.330	.781
.18	1213TC-3-.18-4-*	.360	.781
.22	1213TC-3-.22-4-*	.390	.906
.27	1213TC-3-.27-4-*	.390	.906
.33	1213TC-3-.33-4-*	.430	.906
.39	1213TC-3-.39-4-*	.460	.906
.47	1213TC-3-.47-4-*	.430	1.190
.56	1213TC-3-.56-4-*	.470	1.190
.68	1213TC-3-.68-4-*	.520	1.190
.82	1213TC-3-.82-4-*	.570	1.190
1.0	1213TC-3-1.0-4-*	.620	1.190
1.25	1213TC-3-1.2-4-*	.610	1.440
1.5	1213TC-3-1.5-4-*	.670	1.440
2.0	1213TC-3-2.0-4-*	.770	1.440
3.0	1213TC-3-3.0-4-*	.890	1.570
4.0	1213TC-3-4.0-4-*	.980	1.690
5.0	1213TC-3-5.0-4-*	1.090	1.690
6.0	1213TC-3-6.0-4-*	1.100	1.940
8.0	1213TC-3-8.0-4-*	1.180	2.250
10.0	1213TC-3-10.0-4-*	1.310	2.250

Cap.	600 VDC		
µF	Part #	D	L
.001	1213TC-3-.001-6-*	.180	.531
.0012	1213TC-3-.0012-6-*	.180	.531
.0015	1213TC-3-.0015-6-*	.180	.531
.0022	1213TC-3-.0022-6-*	.180	.531
.0027	1213TC-3-.0027-6-*	.180	.531
.0039	1213TC-3-.0039-6-*	.180	.531
.0047	1213TC-3-.0047-6-*	.180	.531
.0056	1213TC-3-.0056-6-*	.180	.531
.0068	1213TC-3-.0068-6-*	.180	.531
.0082	1213TC-3-.0082-6-*	.180	.531
.01	1213TC-3-.01-6-*	.190	.531
.012	1213TC-3-.012-6-*	.210	.531
.015	1213TC-3-.015-6-*	.230	.531
.018	1213TC-3-.018-6-*	.250	.531
.022	1213TC-3-.022-6-*	.270	.531
.027	1213TC-3-.027-6-*	.300	.531
.033	1213TC-3-.033-6-*	.270	.656
.039	1213TC-3-.039-6-*	.290	.656
.047	1213TC-3-.047-6-*	.320	.656
.056	1213TC-3-.056-6-*	.350	.656
.068	1213TC-3-.068-6-*	.330	.781
.082	1213TC-3-.082-6-*	.360	.781
.1	1213TC-3-.1-6-*	.360	.906
.12	1213TC-3-.12-6-*	.390	.906
.15	1213TC-3-.15-6-*	.430	.906
.18	1213TC-3-.18-6-*	.470	.906
.22	1213TC-3-.22-6-*	.450	1.190
.27	1213TC-3-.27-6-*	.490	1.190
.33	1213TC-3-.33-6-*	.540	1.190
.39	1213TC-3-.39-6-*	.580	1.190
.47	1213TC-3-.47-6-*	.640	1.190
.56	1213TC-3-.56-6-*	.610	1.190
.68	1213TC-3-.68-6-*	.670	1.190
.82	1213TC-3-.82-6-*	.740	1.440
1.0	1213TC-3-1.0-6-*	.770	1.570
1.25	1213TC-3-1.2-6-*	.860	1.570
1.5	1213TC-3-1.5-6-*	.900	1.690
2.0	1213TC-3-2.0-6-*	1.040	1.690
3.0	1213TC-3-3.0-6-*	1.260	1.690
4.0	1213TC-3-4.0-6-*	1.340	1.940
5.0	1213TC-3-5.0-6-*	1.390	2.250

* - Please insert appropriate tolerance code



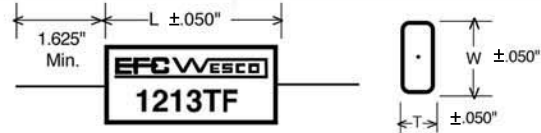
Please consult factory for special requirements, including non-standard values and sizes

1213TF Oval Wrap & Fill

Metallized Polypropylene Capacitors

Lead Spec.
Tinned Copperweld
Under .190T = 24 AWG
.190 - .380T = 22AWG
Above .380T = 20 AWG

Dimensions and Ratings



Cap.	50 VDC			
μF	Part #	T	W	L
.001	1213TF-3-.001-0-*	.100	.190	.406
.0012	1213TF-3-.0012-0-*	.100	.190	.406
.0015	1213TF-3-.0015-0-*	.100	.190	.406
.0022	1213TF-3-.0022-0-*	.100	.190	.406
.0027	1213TF-3-.0027-0-*	.100	.190	.406
.0039	1213TF-3-.0039-0-*	.100	.190	.406
.0047	1213TF-3-.0047-0-*	.100	.190	.406
.0056	1213TF-3-.0056-0-*	.100	.190	.406
.0068	1213TF-3-.0068-0-*	.100	.190	.406
.0082	1213TF-3-.0082-0-*	.100	.190	.406
.01	1213TF-3-.01-0-*	.100	.190	.406
.012	1213TF-3-.012-0-*	.100	.190	.406
.015	1213TF-3-.015-0-*	.100	.190	.406
.018	1213TF-3-.018-0-*	.100	.190	.406
.022	1213TF-3-.022-0-*	.100	.190	.406
.027	1213TF-3-.027-0-*	.110	.200	.406
.033	1213TF-3-.033-0-*	.120	.220	.406
.039	1213TF-3-.039-0-*	.140	.230	.406
.047	1213TF-3-.047-0-*	.150	.250	.406
.056	1213TF-3-.056-0-*	.170	.270	.406
.068	1213TF-3-.068-0-*	.190	.290	.406
.082	1213TF-3-.082-0-*	.130	.220	.531
.1	1213TF-3-.1-0-*	.150	.240	.531
.12	1213TF-3-.12-0-*	.160	.260	.531
.15	1213TF-3-.15-0-*	.190	.280	.531
.18	1213TF-3-.18-0-*	.210	.300	.531
.22	1213TF-3-.22-0-*	.240	.330	.531
.27	1213TF-3-.27-0-*	.200	.300	.656
.33	1213TF-3-.33-0-*	.230	.320	.656
.39	1213TF-3-.39-0-*	.250	.350	.656
.47	1213TF-3-.47-0-*	.280	.380	.656
.56	1213TF-3-.56-0-*	.260	.360	.781
.68	1213TF-3-.68-0-*	.290	.390	.781
.82	1213TF-3-.82-0-*	.330	.420	.781
1.0	1213TF-3-1.0-0-*	.360	.460	.781
1.25	1213TF-3-1.2-0-*	.360	.460	.906
1.5	1213TF-3-1.5-0-*	.400	.500	.906
2.0	1213TF-3-2.0-0-*	.390	.480	1.190
3.0	1213TF-3-3.0-0-*	.470	.590	1.190
4.0	1213TF-3-4.0-0-*	.440	.680	1.190
5.0	1213TF-3-5.0-0-*	.540	.670	1.440
6.0	1213TF-3-6.0-0-*	.600	.720	1.440

Cap.	100 VDC			
μF	Part #	T	W	L
.001	1213TF-3-.001-1-*	.120	.210	.406
.0012	1213TF-3-.0012-1-*	.120	.210	.406
.0015	1213TF-3-.0015-1-*	.120	.210	.406
.0022	1213TF-3-.0022-1-*	.120	.210	.406
.0027	1213TF-3-.0027-1-*	.120	.210	.406
.0039	1213TF-3-.0039-1-*	.120	.210	.406
.0047	1213TF-3-.0047-1-*	.120	.210	.406
.0056	1213TF-3-.0056-1-*	.120	.210	.406
.0068	1213TF-3-.0068-1-*	.120	.210	.406
.0082	1213TF-3-.0082-1-*	.120	.210	.406
.01	1213TF-3-.01-1-*	.120	.210	.406
.012	1213TF-3-.012-1-*	.120	.210	.406
.015	1213TF-3-.015-1-*	.120	.210	.406
.018	1213TF-3-.018-1-*	.120	.210	.406
.022	1213TF-3-.022-1-*	.120	.220	.406
.027	1213TF-3-.027-1-*	.140	.230	.406
.033	1213TF-3-.033-1-*	.160	.250	.406
.039	1213TF-3-.039-1-*	.180	.270	.406
.047	1213TF-3-.047-1-*	.120	.210	.531
.056	1213TF-3-.056-1-*	.130	.220	.531
.068	1213TF-3-.068-1-*	.150	.240	.531
.082	1213TF-3-.082-1-*	.160	.260	.531
.1	1213TF-3-.1-1-*	.190	.280	.531
.12	1213TF-3-.12-1-*	.210	.300	.531
.15	1213TF-3-.15-1-*	.240	.330	.531
.18	1213TF-3-.18-1-*	.200	.300	.656
.22	1213TF-3-.22-1-*	.230	.320	.656
.27	1213TF-3-.27-1-*	.260	.350	.656
.33	1213TF-3-.33-1-*	.290	.380	.656
.39	1213TF-3-.39-1-*	.270	.360	.781
.47	1213TF-3-.47-1-*	.300	.390	.781
.56	1213TF-3-.56-1-*	.330	.420	.781
.68	1213TF-3-.68-1-*	.310	.430	.906
.82	1213TF-3-.82-1-*	.340	.470	.906
1.0	1213TF-3-1.0-1-*	.380	.510	.906
1.25	1213TF-3-1.2-1-*	.360	.480	1.190
1.5	1213TF-3-1.5-1-*	.400	.520	1.190
2.0	1213TF-3-2.0-1-*	.470	.590	1.190
3.0	1213TF-3-3.0-1-*	.490	.650	1.440
4.0	1213TF-3-4.0-1-*	.570	.740	1.440
5.0	1213TF-3-5.0-1-*	.650	.820	1.440
6.0	1213TF-3-6.0-1-*	.680	.850	1.570
8.0	1213TF-3-8.0-1-*	.800	.970	1.570
10.0	1213TF-3-10.0-1-*	.840	1.040	1.690
12.0	1213TF-3-12.0-1-*	.850	1.040	1.940
15.0	1213TF-3-15.0-1-*	.960	1.160	1.940
20.0	1213TF-3-20.0-1-*	1.040	1.230	2.250

Cap.	160 VDC			
μF	Part #	T	W	L
.001	1213TF-3-.001-1.6-*	.120	.210	.406
.0012	1213TF-3-.0012-1.6-*	.120	.210	.406
.0015	1213TF-3-.0015-1.6-*	.120	.210	.406
.0022	1213TF-3-.0022-1.6-*	.120	.210	.406
.0027	1213TF-3-.0027-1.6-*	.120	.210	.406
.0039	1213TF-3-.0039-1.6-*	.120	.210	.406
.0047	1213TF-3-.0047-1.6-*	.120	.210	.406
.0056	1213TF-3-.0056-1.6-*	.120	.210	.406
.0068	1213TF-3-.0068-1.6-*	.120	.210	.406
.0082	1213TF-3-.0082-1.6-*	.120	.210	.406
.01	1213TF-3-.01-1.6-*	.120	.210	.406
.012	1213TF-3-.012-1.6-*	.120	.210	.406
.015	1213TF-3-.015-1.6-*	.120	.210	.406
.018	1213TF-3-.018-1.6-*	.120	.210	.406
.022	1213TF-3-.022-1.6-*	.120	.220	.406
.027	1213TF-3-.027-1.6-*	.140	.230	.406
.033	1213TF-3-.033-1.6-*	.160	.250	.406
.039	1213TF-3-.039-1.6-*	.180	.270	.406
.047	1213TF-3-.047-1.6-*	.120	.210	.531
.056	1213TF-3-.056-1.6-*	.130	.220	.531
.068	1213TF-3-.068-1.6-*	.150	.240	.531
.082	1213TF-3-.082-1.6-*	.160	.260	.531
.1	1213TF-3-.1-1.6-*	.190	.280	.531
.12	1213TF-3-.12-1.6-*	.210	.300	.531
.15	1213TF-3-.15-1.6-*	.240	.330	.531
.18	1213TF-3-.18-1.6-*	.200	.300	.656
.22	1213TF-3-.22-1.6-*	.230	.320	.656
.27	1213TF-3-.27-1.6-*	.260	.350	.656
.33	1213TF-3-.33-1.6-*	.290	.380	.656
.39	1213TF-3-.39-1.6-*	.270	.360	.781
.47	1213TF-3-.47-1.6-*	.300	.390	.781
.56	1213TF-3-.56-1.6-*	.330	.420	.781
.68	1213TF-3-.68-1.6-*	.310	.430	.906
.82	1213TF-3-.82-1.6-*	.340	.470	.906
1.0	1213TF-3-1.0-1.6-*	.380	.510	.906
1.25	1213TF-3-1.25-1.6-*	.360	.480	1.190
1.5	1213TF-3-1.5-1.6-*	.400	.520	1.190
2.0	1213TF-3-2.0-1.6-*	.470	.590	1.190
3.0	1213TF-3-3.0-1.6-*	.490	.650	1.440
4.0	1213TF-3-4.0-1.6-*	.570	.740	1.440
5.0	1213TF-3-5.0-1.6-*	.650	.820	1.440
6.0	1213TF-3-6.0-1.6-*	.680	.850	1.570
8.0	1213TF-3-8.0-1.6-*	.800	.970	1.570
10.0	1213TF-3-10.0-1.6-*	.840	1.040	1.690
12.0	1213TF-3-12.0-1.6-*	.850	1.040	1.940
15.0	1213TF-3-15.0-1.6-*	.960	1.160	1.940
20.0	1213TF-3-20.0-1.6-*	1.040	1.230	2.250

* - Please insert appropriate tolerance code

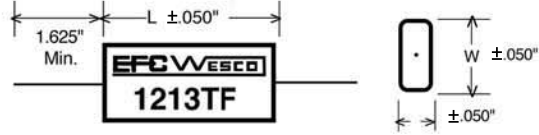


1213TF Oval Wrap & Fill

Metallized Polypropylene Capacitors

Lead Spec.
Tinned Copperweld
Under .190T = 24 AWG
.190 - .380T = 22AWG
Above .380T = 20 AWG

Dimensions and Ratings



Cap.	200 VDC				
μF	Part #	T	W	L	
.001	1213TF-3-.001-2-*	.120	.210	.406	
.0012	1213TF-3-.0012-2-*	.120	.210	.406	
.0015	1213TF-3-.0015-2-*	.120	.210	.406	
.0022	1213TF-3-.0022-2-*	.120	.210	.406	
.0027	1213TF-3-.0027-2-*	.120	.210	.406	
.0039	1213TF-3-.0039-2-*	.120	.210	.406	
.0047	1213TF-3-.0047-2-*	.120	.210	.406	
.0056	1213TF-3-.0056-2-*	.120	.210	.406	
.0068	1213TF-3-.0068-2-*	.120	.210	.406	
.0082	1213TF-3-.0082-2-*	.120	.210	.406	
.01	1213TF-3-.01-2-*	.120	.210	.406	
.012	1213TF-3-.012-2-*	.120	.210	.406	
.015	1213TF-3-.015-2-*	.120	.210	.406	
.018	1213TF-3-.018-2-*	.140	.230	.406	
.022	1213TF-3-.022-2-*	.150	.250	.406	
.027	1213TF-3-.027-2-*	.170	.270	.406	
.033	1213TF-3-.033-2-*	.120	.210	.531	
.039	1213TF-3-.039-2-*	.130	.220	.531	
.047	1213TF-3-.047-2-*	.150	.240	.531	
.056	1213TF-3-.056-2-*	.160	.260	.531	
.068	1213TF-3-.068-2-*	.180	.280	.531	
.082	1213TF-3-.082-2-*	.210	.300	.531	
.1	1213TF-3-.1-2-*	.230	.330	.531	
.12	1213TF-3-.12-2-*	.200	.290	.656	
.15	1213TF-3-.15-2-*	.230	.320	.656	
.18	1213TF-3-.18-2-*	.250	.350	.656	
.22	1213TF-3-.22-2-*	.280	.380	.656	
.27	1213TF-3-.27-2-*	.250	.380	.781	
.33	1213TF-3-.33-2-*	.280	.410	.781	
.39	1213TF-3-.39-2-*	.310	.440	.781	
.47	1213TF-3-.47-2-*	.300	.430	.906	
.56	1213TF-3-.56-2-*	.340	.460	.906	
.68	1213TF-3-.68-2-*	.380	.500	.906	
.82	1213TF-3-.82-2-*	.420	.550	.906	
1.0	1213TF-3-1.0-2-*	.370	.530	1.190	
1.25	1213TF-3-1.25-2-*	.420	.590	1.190	
1.5	1213TF-3-1.5-2-*	.470	.630	1.190	
2.0	1213TF-3-2.0-2-*	.470	.640	1.440	
3.0	1213TF-3-3.0-2-*	.600	.770	1.440	
4.0	1213TF-3-4.0-2-*	.670	.830	1.570	
5.0	1213TF-3-5.0-2-*	.750	.920	1.570	
6.0	1213TF-3-6.0-2-*	.770	.970	1.690	
8.0	1213TF-3-8.0-2-*	.830	1.020	1.940	
10.0	1213TF-3-10.0-2-*	.940	1.130	1.940	
12.0	1213TF-3-12.0-2-*	.960	1.150	2.250	

Cap.	400 VDC				
μF	Part #	T	W	L	
.001	1213TF-3-.001-4-*	.120	.210	.406	
.0012	1213TF-3-.0012-4-*	.120	.210	.406	
.0015	1213TF-3-.0015-4-*	.120	.210	.406	
.0022	1213TF-3-.0022-4-*	.120	.210	.406	
.0027	1213TF-3-.0027-4-*	.120	.210	.406	
.0039	1213TF-3-.0039-4-*	.120	.210	.406	
.0047	1213TF-3-.0047-4-*	.120	.210	.406	
.0056	1213TF-3-.0056-4-*	.120	.210	.406	
.0068	1213TF-3-.0068-4-*	.120	.210	.406	
.0082	1213TF-3-.0082-4-*	.120	.210	.406	
.01	1213TF-3-.01-4-*	.130	.230	.406	
.012	1213TF-3-.012-4-*	.150	.250	.406	
.015	1213TF-3-.015-4-*	.170	.270	.406	
.018	1213TF-3-.018-4-*	.190	.290	.406	
.022	1213TF-3-.022-4-*	.130	.220	.531	
.027	1213TF-3-.027-4-*	.150	.240	.531	
.033	1213TF-3-.033-4-*	.170	.260	.531	
.039	1213TF-3-.039-4-*	.190	.280	.531	
.047	1213TF-3-.047-4-*	.210	.300	.531	
.056	1213TF-3-.056-4-*	.230	.330	.531	
.068	1213TF-3-.068-4-*	.200	.290	.656	
.082	1213TF-3-.082-4-*	.220	.320	.656	
.1	1213TF-3-.1-4-*	.250	.340	.656	
.12	1213TF-3-.12-4-*	.280	.370	.656	
.15	1213TF-3-.15-4-*	.250	.370	.781	
.18	1213TF-3-.18-4-*	.280	.400	.781	
.22	1213TF-3-.22-4-*	.310	.440	.781	
.27	1213TF-3-.27-4-*	.310	.430	.906	
.33	1213TF-3-.33-4-*	.350	.470	.906	
.39	1213TF-3-.39-4-*	.380	.510	.906	
.47	1213TF-3-.47-4-*	.330	.490	1.190	
.56	1213TF-3-.56-4-*	.370	.530	1.190	
.68	1213TF-3-.68-4-*	.410	.580	1.190	
.82	1213TF-3-.82-4-*	.460	.630	1.190	
1.0	1213TF-3-1.0-4-*	.520	.680	1.190	
1.25	1213TF-3-1.25-4-*	.500	.670	1.440	
1.5	1213TF-3-1.5-4-*	.560	.730	1.440	
2.0	1213TF-3-2.0-4-*	.660	.830	1.440	
3.0	1213TF-3-3.0-4-*	.780	.950	1.570	
4.0	1213TF-3-4.0-4-*	.850	1.050	1.690	
5.0	1213TF-3-5.0-4-*	.970	1.160	1.690	
6.0	1213TF-3-6.0-4-*	.970	1.170	1.940	
8.0	1213TF-3-8.0-4-*	1.050	1.250	2.250	
10.0	1213TF-3-10.0-4-*	1.190	1.380	2.250	

Cap.	600 VDC				
μF	Part #	T	W	L	
.001	1213TF-3-.001-6-*	.120	.210	.531	
.0012	1213TF-3-.0012-6-*	.120	.210	.531	
.0015	1213TF-3-.0015-6-*	.120	.210	.531	
.0022	1213TF-3-.0022-6-*	.120	.210	.531	
.0027	1213TF-3-.0027-6-*	.120	.210	.531	
.0039	1213TF-3-.0039-6-*	.120	.210	.531	
.0047	1213TF-3-.0047-6-*	.120	.210	.531	
.0056	1213TF-3-.0056-6-*	.120	.210	.531	
.0068	1213TF-3-.0068-6-*	.120	.210	.531	
.0082	1213TF-3-.0082-6-*	.120	.210	.531	
.01	1213TF-3-.01-6-*	.130	.230	.531	
.012	1213TF-3-.012-6-*	.150	.240	.531	
.015	1213TF-3-.015-6-*	.170	.260	.531	
.018	1213TF-3-.018-6-*	.190	.280	.531	
.022	1213TF-3-.022-6-*	.210	.310	.531	
.027	1213TF-3-.027-6-*	.240	.340	.531	
.033	1213TF-3-.033-6-*	.210	.300	.656	
.039	1213TF-3-.039-6-*	.230	.330	.656	
.047	1213TF-3-.047-6-*	.260	.350	.656	
.056	1213TF-3-.056-6-*	.290	.380	.656	
.068	1213TF-3-.068-6-*	.250	.380	.781	
.082	1213TF-3-.082-6-*	.280	.410	.781	
.1	1213TF-3-.1-6-*	.280	.400	.906	
.12	1213TF-3-.12-6-*	.310	.430	.906	
.15	1213TF-3-.15-6-*	.350	.480	.906	
.18	1213TF-3-.18-6-*	.390	.520	.906	
.22	1213TF-3-.22-6-*	.340	.510	1.190	
.27	1213TF-3-.27-6-*	.380	.550	1.190	
.33	1213TF-3-.33-6-*	.430	.600	1.190	
.39	1213TF-3-.39-6-*	.480	.640	1.190	
.47	1213TF-3-.47-6-*	.530	.700	1.190	
.56	1213TF-3-.56-6-*	.510	.670	1.190	
.68	1213TF-3-.68-6-*	.570	.730	1.190	
.82	1213TF-3-.82-6-*	.630	.800	1.440	
1.0	1213TF-3-1.0-6-*	.670	.830	1.570	
1.25	1213TF-3-1.25-6-*	.750	.920	1.570	
1.5	1213TF-3-1.5-6-*	.770	.970	1.690	
2.0	1213TF-3-2.0-6-*	.910	1.110	1.690	
3.0	1213TF-3-3.0-6-*	1.140	1.340	1.690	
4.0	1213TF-3-4.0-6-*	1.220	1.410	1.940	
5.0	1213TF-3-5.0-6-*	1.270	1.460	2.250	

* - Please insert appropriate tolerance code

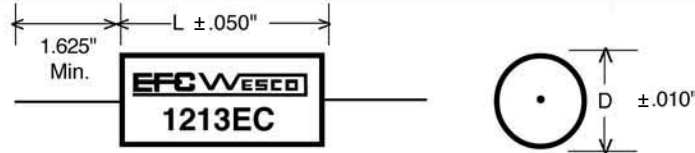


Please consult factory for special requirements, including non-standard values and sizes

1213EC
Tubular Plastic Case
(Axial Leads)

**Metallized Polypropylene
Capacitors**

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG



Dimensions and Ratings

Cap.	50 VDC		
	μF	Part #	D L
.001	1213EC-3-.001-0-*	.187 .375	
.0012	1213EC-3-.0012-0-*	.187 .375	
.0015	1213EC-3-.0015-0-*	.187 .375	
.0022	1213EC-3-.0022-0-*	.187 .375	
.0027	1213EC-3-.0027-0-*	.187 .375	
.0039	1213EC-3-.0039-0-*	.187 .375	
.0047	1213EC-3-.0047-0-*	.187 .375	
.0056	1213EC-3-.0056-0-*	.187 .375	
.0068	1213EC-3-.0068-0-*	.187 .375	
.0082	1213EC-3-.0082-0-*	.187 .375	
.01	1213EC-3-.01-0-*	.187 .375	
.012	1213EC-3-.012-0-*	.187 .375	
.015	1213EC-3-.015-0-*	.187 .375	
.018	1213EC-3-.018-0-*	.187 .375	
.022	1213EC-3-.022-0-*	.187 .375	
.027	1213EC-3-.027-0-*	.225 .375	
.033	1213EC-3-.033-0-*	.225 .375	
.039	1213EC-3-.039-0-*	.187 .500	
.047	1213EC-3-.047-0-*	.187 .500	
.056	1213EC-3-.056-0-*	.225 .500	
.068	1213EC-3-.068-0-*	.225 .500	
.082	1213EC-3-.082-0-*	.225 .500	
.1	1213EC-3-.1-0-*	.250 .500	
.12	1213EC-3-.12-0-*	.250 .500	
.15	1213EC-3-.15-0-*	.225 .625	
.18	1213EC-3-.18-0-*	.250 .625	
.22	1213EC-3-.22-0-*	.312 .625	
.27	1213EC-3-.27-0-*	.312 .625	
.33	1213EC-3-.33-0-*	.312 .750	
.39	1213EC-3-.39-0-*	.312 .750	
.47	1213EC-3-.47-0-*	.375 .750	
.56	1213EC-3-.56-0-*	.375 .750	
.68	1213EC-3-.68-0-*	.375 .750	
.82	1213EC-3-.82-0-*	.375 .875	
1.0	1213EC-3-1.0-0-*	.437 .875	
1.2	1213EC-3-1.2-0-*	.500 .875	
1.5	1213EC-3-1.5-0-*	.500 .875	
2.0	1213EC-3-2.0-0-*	.500 1.190	

Cap.	100 VDC		
	μF	Part #	D L
.001	1213EC-3-.001-1-*	.187 .375	
.0012	1213EC-3-.0012-1-*	.187 .375	
.0015	1213EC-3-.0015-1-*	.187 .375	
.0022	1213EC-3-.0022-1-*	.187 .375	
.0027	1213EC-3-.0027-1-*	.187 .375	
.0039	1213EC-3-.0039-1-*	.187 .375	
.0047	1213EC-3-.0047-1-*	.187 .375	
.0056	1213EC-3-.0056-1-*	.187 .375	
.0068	1213EC-3-.0068-1-*	.187 .375	
.0082	1213EC-3-.0082-1-*	.187 .375	
.01	1213EC-3-.01-1-*	.187 .375	
.012	1213EC-3-.012-1-*	.187 .375	
.015	1213EC-3-.015-1-*	.187 .375	
.018	1213EC-3-.018-1-*	.225 .375	
.022	1213EC-3-.022-1-*	.225 .375	
.027	1213EC-3-.027-1-*	.187 .500	
.033	1213EC-3-.033-1-*	.225 .500	
.039	1213EC-3-.039-1-*	.225 .500	
.047	1213EC-3-.047-1-*	.225 .500	
.056	1213EC-3-.056-1-*	.225 .500	
.068	1213EC-3-.068-1-*	.250 .500	
.082	1213EC-3-.082-1-*	.250 .500	
.1	1213EC-3-.1-1-*	.250 .625	
.12	1213EC-3-.12-1-*	.250 .625	
.15	1213EC-3-.15-1-*	.312 .625	
.18	1213EC-3-.18-1-*	.312 .625	
.22	1213EC-3-.22-1-*	.312 .750	
.27	1213EC-3-.27-1-*	.312 .750	
.33	1213EC-3-.33-1-*	.375 .750	
.39	1213EC-3-.39-1-*	.375 .750	
.47	1213EC-3-.47-1-*	.375 .875	
.56	1213EC-3-.56-1-*	.437 .875	
.68	1213EC-3-.68-1-*	.437 .875	
.82	1213EC-3-.82-1-*	.500 .875	
1.0	1213EC-3-1.0-1-*	.500 .875	
1.2	1213EC-3-1.2-1-*	.500 1.190	

Cap.	160 VDC		
	μF	Part #	D L
.001	1213EC-3-.001-1.6-*	.187 .375	
.0012	1213EC-3-.0012-1.6-*	.187 .375	
.0015	1213EC-3-.0015-1.6-*	.187 .375	
.0022	1213EC-3-.0022-1.6-*	.187 .375	
.0027	1213EC-3-.0027-1.6-*	.187 .375	
.0039	1213EC-3-.0039-1.6-*	.187 .375	
.0047	1213EC-3-.0047-1.6-*	.187 .375	
.0056	1213EC-3-.0056-1.6-*	.187 .375	
.0068	1213EC-3-.0068-1.6-*	.187 .375	
.0082	1213EC-3-.0082-1.6-*	.187 .375	
.01	1213EC-3-.01-1.6-*	.187 .375	
.012	1213EC-3-.012-1.6-*	.187 .375	
.015	1213EC-3-.015-1.6-*	.187 .375	
.018	1213EC-3-.018-1.6-*	.225 .375	
.022	1213EC-3-.022-1.6-*	.225 .375	
.027	1213EC-3-.027-1.6-*	.187 .500	
.033	1213EC-3-.033-1.6-*	.225 .500	
.039	1213EC-3-.039-1.6-*	.225 .500	
.047	1213EC-3-.047-1.6-*	.225 .500	
.056	1213EC-3-.056-1.6-*	.225 .500	
.068	1213EC-3-.068-1.6-*	.250 .500	
.082	1213EC-3-.082-1.6-*	.250 .500	
.1	1213EC-3-.1-1.6-*	.250 .625	
.12	1213EC-3-.12-1.6-*	.250 .625	
.15	1213EC-3-.15-1.6-*	.312 .625	
.18	1213EC-3-.18-1.6-*	.312 .625	
.22	1213EC-3-.22-1.6-*	.312 .750	
.27	1213EC-3-.27-1.6-*	.312 .750	
.33	1213EC-3-.33-1.6-*	.375 .750	
.39	1213EC-3-.39-1.6-*	.375 .750	
.47	1213EC-3-.47-1.6-*	.375 .875	
.56	1213EC-3-.56-1.6-*	.437 .875	
.68	1213EC-3-.68-1.6-*	.437 .875	
.82	1213EC-3-.82-1.6-*	.500 .875	
1.0	1213EC-3-1.0-1.6-*	.500 .875	
1.2	1213EC-3-1.2-1.6-*	.500 1.190	

* - Please insert appropriate tolerance code

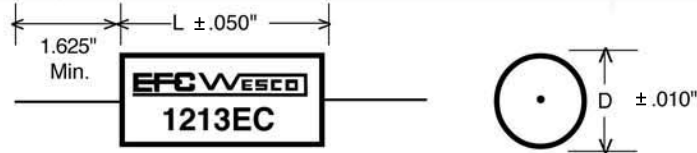


Please consult factory for special requirements, including non-standard values and sizes

1213EC
Tubular Plastic Case
(Axial Leads)

**Metallized Polypropylene
Capacitors**

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG



Dimensions and Ratings

Cap.		200 VDC		
μF	Part #	D	L	
.001	1213EC-3-.001-2-*	.187	.375	
.0012	1213EC-3-.0012-2-*	.187	.375	
.0015	1213EC-3-.0015-2-*	.187	.375	
.0022	1213EC-3-.0022-2-*	.187	.375	
.0027	1213EC-3-.0027-2-*	.187	.375	
.0039	1213EC-3-.0033-2-*	.187	.375	
.0047	1213EC-3-.0047-2-*	.187	.375	
.0056	1213EC-3-.0056-2-*	.187	.375	
.0068	1213EC-3-.0068-2-*	.225	.375	
.0082	1213EC-3-.0082-2-*	.225	.375	
.01	1213EC-3-.01-2-*	.225	.375	
.012	1213EC-3-.012-2-*	.225	.375	
.015	1213EC-3-.015-2-*	.225	.375	
.018	1213EC-3-.018-2-*	.225	.375	
.022	1213EC-3-.022-2-*	.225	.500	
.027	1213EC-3-.027-2-*	.225	.500	
.033	1213EC-3-.033-2-*	.225	.500	
.039	1213EC-3-.039-2-*	.225	.500	
.047	1213EC-3-.047-2-*	.250	.500	
.056	1213EC-3-.056-2-*	.250	.500	
.068	1213EC-3-.068-2-*	.250	.625	
.082	1213EC-3-.082-2-*	.312	.625	
.1	1213EC-3-.1-2-*	.312	.625	
.12	1213EC-3-.12-2-*	.312	.625	
.15	1213EC-3-.15-2-*	.312	.750	
.18	1213EC-3-.18-2-*	.312	.750	
.22	1213EC-3-.22-2-*	.375	.750	
.27	1213EC-3-.27-2-*	.375	.750	
.33	1213EC-3-.33-2-*	.375	.875	
.39	1213EC-3-.39-2-*	.437	.875	
.47	1213EC-3-.47-2-*	.437	.875	
.56	1213EC-3-.56-2-*	.500	.875	
.68	1213EC-3-.68-2-*	.500	.875	
.82	1213EC-3-.82-2-*	.500	1.190	
1.0	1213EC-3-1.0-2-*	.500	1.190	

Cap.		400 VDC		
μF	Part #	D	L	
.001	1213EC-3-.001-4-*	.187	.375	
.0012	1213EC-3-.0012-4-*	.187	.375	
.0015	1213EC-3-.0015-4-*	.187	.375	
.0022	1213EC-3-.0022-4-*	.187	.375	
.0027	1213EC-3-.0027-4-*	.187	.375	
.0039	1213EC-3-.0033-4-*	.187	.375	
.0047	1213EC-3-.0047-4-*	.187	.375	
.0056	1213EC-3-.0056-4-*	.225	.375	
.0068	1213EC-3-.0068-4-*	.225	.375	
.0082	1213EC-3-.0082-4-*	.225	.375	
.01	1213EC-3-.01-4-*	.225	.375	
.012	1213EC-3-.012-4-*	.225	.500	
.015	1213EC-3-.015-4-*	.225	.500	
.018	1213EC-3-.018-4-*	.225	.500	
.022	1213EC-3-.022-4-*	.225	.500	
.027	1213EC-3-.027-4-*	.250	.500	
.033	1213EC-3-.033-4-*	.250	.625	
.039	1213EC-3-.039-4-*	.250	.625	
.047	1213EC-3-.047-4-*	.250	.625	
.056	1213EC-3-.056-4-*	.312	.625	
.068	1213EC-3-.068-4-*	.312	.625	
.082	1213EC-3-.082-4-*	.312	.625	
.1	1213EC-3-.1-4-*	.312	.750	
.12	1213EC-3-.12-4-*	.375	.750	
.15	1213EC-3-.15-4-*	.375	.750	
.18	1213EC-3-.18-4-*	.375	.875	
.22	1213EC-3-.22-4-*	.437	.875	
.27	1213EC-3-.27-4-*	.437	.875	
.33	1213EC-3-.33-4-*	.500	.875	
.39	1213EC-3-.39-4-*	.500	1.190	
.47	1213EC-3-.47-4-*	.500	1.190	

Cap.		600 VDC		
μF	Part #	D	L	
.001	1213EC-3-.001-6-*	.187	.500	
.0012	1213EC-3-.0012-6-*	.187	.500	
.0015	1213EC-3-.0015-6-*	.187	.500	
.0022	1213EC-3-.0022-6-*	.187	.500	
.0027	1213EC-3-.0027-6-*	.187	.500	
.0039	1213EC-3-.0033-6-*	.187	.500	
.0047	1213EC-3-.0047-6-*	.187	.500	
.0056	1213EC-3-.0056-6-*	.225	.500	
.0068	1213EC-3-.0068-6-*	.225	.500	
.0082	1213EC-3-.0082-6-*	.225	.500	
.01	1213EC-3-.01-6-*	.225	.500	
.012	1213EC-3-.012-6-*	.250	.500	
.015	1213EC-3-.015-6-*	.250	.625	
.018	1213EC-3-.018-6-*	.250	.625	
.022	1213EC-3-.022-6-*	.250	.625	
.027	1213EC-3-.027-6-*	.312	.625	
.033	1213EC-3-.033-6-*	.312	.625	
.039	1213EC-3-.039-6-*	.312	.750	
.047	1213EC-3-.047-6-*	.312	.750	
.056	1213EC-3-.056-6-*	.375	.750	
.068	1213EC-3-.068-6-*	.375	.750	
.082	1213EC-3-.082-6-*	.375	.875	
.10	1213EC-3-.1-6-*	.437	.875	
.12	1213EC-3-.12-6-*	.437	.875	
.15	1213EC-3-.15-6-*	.500	.875	
.18	1213EC-3-.18-6-*	.500	1.190	
.22	1213EC-3-.22-6-*	.500	1.190	

* - Please insert appropriate tolerance code

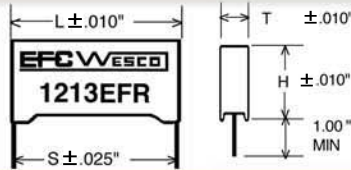


Please consult factory for special requirements, including non-standard values and sizes

1213EFR
Rectangular Plastic Case
(Radial Leads)

Metallized Polypropylene Capacitors

**Lead Specs -
Tinned Copperweld
B through E cases: 22 AWG
F through Q cases: 20 AWG**



Dimensions and Ratings

63 VDC / 40 VAC					
Cap. μ F	Part #	T in. (mm)	L in. (mm)	H in. (mm)	S in. (mm)
.001	1213EFR-B-.001-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0012	1213EFR-B-.0012-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0015	1213EFR-B-.0015-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0018	1213EFR-B-.0018-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0022	1213EFR-B-.0022-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0027	1213EFR-B-.0027-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0033	1213EFR-B-.0033-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0039	1213EFR-B-.0039-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0047	1213EFR-B-.0047-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0056	1213EFR-B-.0056-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0068	1213EFR-B-.0068-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0082	1213EFR-B-.0082-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.01	1213EFR-B-.01-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.012	1213EFR-B-.012-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.015	1213EFR-B-.015-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.018	1213EFR-B-.018-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.022	1213EFR-B-.022-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.027	1213EFR-B-.027-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.033	1213EFR-C-.033-63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.039	1213EFR-C-.039-63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.047	1213EFR-C-.047-63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.056	1213EFR-C-.056-63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.068	1213EFR-D-.068-63-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.082	1213EFR-D-.082-63-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.1	1213EFR-E-.1-63-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.12	1213EFR-E-.12-63-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.15	1213EFR-F-.15-63-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.18	1213EFR-F-.18-63-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.22	1213EFR-G-.22-63-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.27	1213EFR-G-.27-63-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.33	1213EFR-H-.33-63-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.39	1213EFR-H-.39-63-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.47	1213EFR-J-.47-63-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.47	1213EFR-L-.47-63-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.56	1213EFR-K-.56-63-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.56	1213EFR-M-.56-63-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.68	1213EFR-N-.68-63-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.82	1213EFR-O-.82-63-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
1.0	1213EFR-O-1.0-63-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
1.2	1213EFR-P-1.2-63-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
1.5	1213EFR-Q-1.5-63-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)

160 VDC / 100 VAC					
Cap. μ F	Part #	T in. (mm)	L in. (mm)	H in. (mm)	S in. (mm)
.001	1213EFR-B-.001-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0012	1213EFR-B-.0012-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0015	1213EFR-B-.0015-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0018	1213EFR-B-.0018-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0022	1213EFR-B-.0022-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0027	1213EFR-B-.0027-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0033	1213EFR-B-.0033-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0039	1213EFR-B-.0039-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0047	1213EFR-B-.0047-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0056	1213EFR-B-.0056-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0068	1213EFR-B-.0068-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0082	1213EFR-B-.0082-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.01	1213EFR-B-.01-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.012	1213EFR-B-.012-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.015	1213EFR-B-.015-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.018	1213EFR-C-.018-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.022	1213EFR-C-.022-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.027	1213EFR-C-.027-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.033	1213EFR-C-.033-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.039	1213EFR-C-.039-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.047	1213EFR-D-.047-1.6-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.056	1213EFR-D-.056-1.6-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.068	1213EFR-E-.068-1.6-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.082	1213EFR-E-.082-1.6-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.1	1213EFR-F-.1-1.6-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.12	1213EFR-G-.12-1.6-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.15	1213EFR-G-.15-1.6-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.18	1213EFR-H-.18-1.6-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.22	1213EFR-H-.22-1.6-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.27	1213EFR-K-.27-1.6-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.27	1213EFR-M-.27-1.6-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.33	1213EFR-K-.33-1.6-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.33	1213EFR-M-.33-1.6-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.39	1213EFR-N-.39-1.6-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.47	1213EFR-N-.47-1.6-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.56	1213EFR-O-.56-1.6-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.68	1213EFR-P-.68-1.6-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.82	1213EFR-P-.82-1.6-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
1.0	1213EFR-Q-1.0-1.6-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
1.2	1213EFR-Q-1.2-1.6-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)

* - Please insert appropriate tolerance code

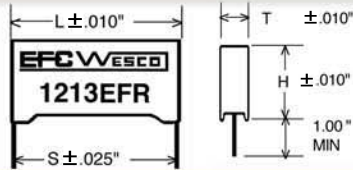


Please consult factory for special requirements, including non-standard values and sizes

1213EFR
Rectangular Plastic Case
(Radial Leads)

Metallized Polypropylene Capacitors

Lead Specs -
Tinned Copperweld
B through E cases: 22 AWG
F through Q cases: 20 AWG



Dimensions and Ratings

250 VDC / 160 VAC					
Cap.	Part #	T	L	H	S
µF		in. (mm)	in. (mm)	in. (mm)	in. (mm)
.001	1213EFR-B-.001-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0012	1213EFR-B-.0012-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0015	1213EFR-B-.0015-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0018	1213EFR-B-.0018-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0022	1213EFR-B-.0022-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0027	1213EFR-B-.0027-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0033	1213EFR-B-.0033-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0039	1213EFR-B-.0039-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0047	1213EFR-B-.0047-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0056	1213EFR-B-.0056-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0068	1213EFR-B-.0068-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0082	1213EFR-B-.0082-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.01	1213EFR-B-.01-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.012	1213EFR-B-.012-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.015	1213EFR-C-.015-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.018	1213EFR-C-.018-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.022	1213EFR-C-.022-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.027	1213EFR-C-.027-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.033	1213EFR-D-.033-2.5-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.039	1213EFR-D-.039-2.5-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.047	1213EFR-E-.047-2.5-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.056	1213EFR-E-.056-2.5-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.068	1213EFR-E-.068-2.5-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.082	1213EFR-G-.082-2.5-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.1	1213EFR-G-.1-2.5-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.12	1213EFR-G-.12-2.5-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.15	1213EFR-H-.15-2.5-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.18	1213EFR-H-.18-2.5-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.22	1213EFR-H-.22-2.5-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.27	1213EFR-K-.27-2.5-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.27	1213EFR-M-.27-2.5-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.33	1213EFR-K-.33-2.5-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.33	1213EFR-M-.33-2.5-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.39	1213EFR-N-.39-2.5-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.47	1213EFR-O-.47-2.5-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.56	1213EFR-O-.56-2.5-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.68	1213EFR-P-.68-2.5-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.82	1213EFR-P-.82-2.5-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
1.0	1213EFR-Q-1.0-2.5-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)

400 VDC / 220 VAC					
Cap.	Part #	T	L	H	S
µF		in. (mm)	in. (mm)	in. (mm)	in. (mm)
.001	1213EFR-B-.001-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0012	1213EFR-B-.0012-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0015	1213EFR-B-.0015-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0018	1213EFR-B-.0018-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0022	1213EFR-B-.0022-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0027	1213EFR-B-.0027-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0033	1213EFR-B-.0033-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0039	1213EFR-B-.0039-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0047	1213EFR-B-.0047-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0056	1213EFR-B-.0056-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0068	1213EFR-B-.0068-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0082	1213EFR-C-.0082-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.01	1213EFR-C-.01-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.012	1213EFR-C-.012-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.015	1213EFR-C-.015-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.018	1213EFR-C-.018-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.022	1213EFR-D-.022-4-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.027	1213EFR-D-.027-4-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.033	1213EFR-E-.033-4-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.039	1213EFR-E-.039-4-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.047	1213EFR-F-.047-4-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.056	1213EFR-G-.056-4-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.068	1213EFR-G-.068-4-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.082	1213EFR-H-.082-4-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.1	1213EFR-H-.1-4-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.12	1213EFR-K-.12-4-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.12	1213EFR-M-.12-4-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.15	1213EFR-K-.15-4-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.15	1213EFR-M-.15-4-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.18	1213EFR-N-.18-4-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.22	1213EFR-N-.22-4-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.27	1213EFR-O-.27-4-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.33	1213EFR-P-.33-4-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.39	1213EFR-P-.39-4-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.47	1213EFR-P-.47-4-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.56	1213EFR-Q-.56-4-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)

* - Please insert appropriate tolerance code

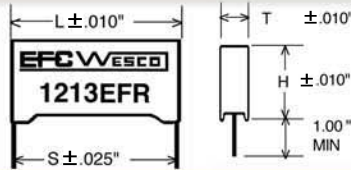


Please consult factory for special requirements, including non-standard values and sizes

1213EFR
Rectangular Plastic Case
(Radial Leads)

Metallized Polypropylene Capacitors

Lead Specs -
Tinned Copperweld
B through E cases: 22 AWG
F through Q cases: 20 AWG



Dimensions and Ratings

Cap.	630 VDC / 250 VAC				
μF	Part #	T in. (mm)	L in. (mm)	H in. (mm)	S in. (mm)
.001	1213EFR-C-.001-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0012	1213EFR-C-.0012-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0015	1213EFR-C-.0015-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0018	1213EFR-C-.0018-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0022	1213EFR-C-.0022-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0027	1213EFR-C-.0027-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0033	1213EFR-C-.0033-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0039	1213EFR-C-.0039-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0047	1213EFR-C-.0047-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0056	1213EFR-C-.0056-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0068	1213EFR-C-.0068-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0082	1213EFR-C-.0082-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.01	1213EFR-D-.01-6.3-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.012	1213EFR-D-.012-6.3-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.015	1213EFR-E-.015-6.3-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.018	1213EFR-E-.018-6.3-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.022	1213EFR-F-.022-6.3-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.027	1213EFR-G-.027-6.3-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.033	1213EFR-G-.033-6.3-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.039	1213EFR-E-.039-6.3-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.047	1213EFR-H-.047-6.3-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.056	1213EFR-H-.056-6.3-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.068	1213EFR-K-.068-6.3-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.068	1213EFR-M-.068-6.3-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.082	1213EFR-N-.082-6.3-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.1	1213EFR-N-.1-6.3-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.12	1213EFR-O-.12-6.3-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.15	1213EFR-P-.15-6.3-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.18	1213EFR-P-.18-6.3-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.22	1213EFR-P-.22-6.3-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.27	1213EFR-Q-.27-6.3-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)

* - Please insert appropriate tolerance code



Please consult factory for special requirements, including non-standard values and sizes

1213DFR

Epoxy Dipped (Radial Leads)

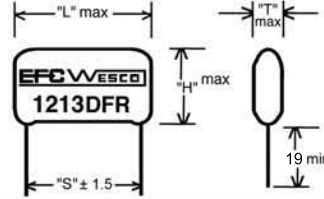
Metallized Polypropylene Capacitors

Lead Specs -
Tinned Copperweld

L	S	DIA
10.0	7.5	0.6
12.5	10.0	0.6
18.0	15.0	0.8
26.0	22.5	0.8
31.0	27.5	0.8
44.0	38.0	1.0

Dimensions and Ratings

All dimensions in mm



Cap.		160 VDC			
μF	Part #	T	H	L	
.001	1213DFR-3-.001-1.6-*	4.0	8.0	10.0	
.0012	1213DFR-3-.0012-1.6-*	4.0	8.0	10.0	
.0015	1213DFR-3-.0015-1.6-*	4.0	8.0	10.0	
.0022	1213DFR-3-.0022-1.6-*	4.0	8.0	10.0	
.0027	1213DFR-3-.0027-1.6-*	4.0	8.0	10.0	
.0039	1213DFR-3-.0039-1.6-*	4.0	8.0	10.0	
.0047	1213DFR-3-.0047-1.6-*	4.0	8.0	10.0	
.0056	1213DFR-3-.0056-1.6-*	4.0	8.0	10.0	
.0068	1213DFR-3-.0068-1.6-*	4.0	8.0	10.0	
.0082	1213DFR-3-.0082-1.6-*	4.0	8.0	10.0	
.01	1213DFR-3-.01-1.6-*	4.0	8.0	10.0	
.012	1213DFR-3-.012-1.6-*	4.0	8.0	10.0	
.015	1213DFR-3-.015-1.6-*	4.0	8.0	10.0	
.018	1213DFR-3-.018-1.6-*	4.0	8.0	10.0	
.022	1213DFR-3-.022-1.6-*	4.0	8.0	10.0	
.027	1213DFR-3-.027-1.6-*	4.0	8.5	10.0	
.033	1213DFR-3-.033-1.6-*	4.0	8.5	10.0	
.039	1213DFR-3-.039-1.6-*	4.0	9.0	10.0	
.047	1213DFR-3-.047-1.6-*	4.0	9.0	10.0	
.056	1213DFR-3-.056-1.6-*	4.0	9.0	10.0	
.068	1213DFR-3-.068-1.6-*	4.0	9.0	12.5	
.082	1213DFR-3-.082-1.6-*	4.5	9.0	12.5	
.1	1213DFR-3-.1-1.6-*	4.5	9.5	12.5	
.12	1213DFR-3-.12-1.6-*	5.0	10.0	12.5	
.15	1213DFR-3-.15-1.6-*	5.5	11.0	12.5	
.18	1213DFR-3-.18-1.6-*	6.0	12.0	12.5	
.22	1213DFR-3-.22-1.6-*	5.5	11.0	18.0	
.27	1213DFR-3-.27-1.6-*	6.0	12.0	18.0	
.33	1213DFR-3-.33-1.6-*	6.5	12.5	18.0	
.39	1213DFR-3-.39-1.6-*	7.0	13.0	18.0	
.47	1213DFR-3-.47-1.6-*	7.5	13.5	18.0	
.56	1213DFR-3-.56-1.6-*	8.0	14.5	18.0	
.68	1213DFR-3-.68-1.6-*	8.5	16.0	18.0	
.82	1213DFR-3-.82-1.6-*	8.0	14.5	26.0	
1.0	1213DFR-3-1.0-1.6-*	8.5	16.0	26.0	
1.2	1213DFR-3-1.2-1.6-*	9.0	16.5	26.0	
1.5	1213DFR-3-1.5-1.6-*	9.5	18.0	26.0	
1.8	1213DFR-3-1.8-1.6-*	9.5	18.0	31.0	
2.2	1213DFR-3-2.2-1.6-*	10.0	20.0	31.0	
2.7	1213DFR-3-2.7-1.6-*	11.5	21.0	31.0	
3.3	1213DFR-3-3.3-1.6-*	12.5	23.0	31.0	
3.9	1213DFR-3-3.9-1.6-*	13.5	25.0	31.0	
4.7	1213DFR-3-4.7-1.6-*	15.0	26.0	31.0	
5.6	1213DFR-3-5.6-1.6-*	16.0	28.0	31.0	
6.8	1213DFR-3-6.8-1.6-*	17.0	30.0	31.0	

Cap.		250 VDC			
μF	Part #	T	H	L	
.001	1213DFR-3-.001-2.5-*	4.0	8.0	10.0	
.0012	1213DFR-3-.0012-2.5-*	4.0	8.0	10.0	
.0015	1213DFR-3-.0015-2.5-*	4.0	8.0	10.0	
.0022	1213DFR-3-.0022-2.5-*	4.0	8.0	10.0	
.0027	1213DFR-3-.0027-2.5-*	4.0	8.0	10.0	
.0039	1213DFR-3-.0039-2.5-*	4.0	8.0	10.0	
.0047	1213DFR-3-.0047-2.5-*	4.0	8.0	10.0	
.0056	1213DFR-3-.0056-2.5-*	4.0	8.0	10.0	
.0068	1213DFR-3-.0068-2.5-*	4.0	8.0	10.0	
.0082	1213DFR-3-.0082-2.5-*	4.0	8.0	10.0	
.01	1213DFR-3-.01-2.5-*	4.0	8.0	10.0	
.012	1213DFR-3-.012-2.5-*	4.0	8.0	10.0	
.015	1213DFR-3-.015-2.5-*	4.0	8.5	10.0	
.018	1213DFR-3-.018-2.5-*	4.0	8.5	10.0	
.022	1213DFR-3-.022-2.5-*	4.0	9.0	10.0	
.027	1213DFR-3-.027-2.5-*	4.0	9.0	10.0	
.033	1213DFR-3-.033-2.5-*	4.5	9.0	12.5	
.039	1213DFR-3-.039-2.5-*	5.0	10.0	12.5	
.047	1213DFR-3-.047-2.5-*	5.5	10.5	12.5	
.056	1213DFR-3-.056-2.5-*	5.5	11.0	12.5	
.068	1213DFR-3-.068-2.5-*	6.0	12.0	12.5	
.082	1213DFR-3-.082-2.5-*	5.0	10.0	18.0	
.1	1213DFR-3-.1-2.5-*	5.5	11.0	18.0	
.12	1213DFR-3-.12-2.5-*	6.0	12.0	18.0	
.15	1213DFR-3-.15-2.5-*	6.5	12.5	18.0	
.18	1213DFR-3-.18-2.5-*	7.0	13.0	18.0	
.22	1213DFR-3-.22-2.5-*	7.5	14.0	18.0	
.27	1213DFR-3-.27-2.5-*	8.5	15.5	18.0	
.33	1213DFR-3-.33-2.5-*	7.5	14.0	26.0	
.39	1213DFR-3-.39-2.5-*	8.0	14.5	26.0	
.47	1213DFR-3-.47-2.5-*	8.5	15.0	26.0	
.56	1213DFR-3-.56-2.5-*	9.0	16.5	26.0	
.68	1213DFR-3-.68-2.5-*	9.5	18.0	26.0	
.82	1213DFR-3-.82-2.5-*	9.5	17.0	31.0	
1.0	1213DFR-3-1.0-2.5-*	10.0	19.0	31.0	
1.2	1213DFR-3-1.2-2.5-*	11.0	20.0	31.0	
1.5	1213DFR-3-1.5-2.5-*	12.5	23.0	31.0	
1.8	1213DFR-3-1.8-2.5-*	13.0	24.0	31.0	
2.2	1213DFR-3-2.2-2.5-*	14.0	26.0	31.0	
2.7	1213DFR-3-2.7-2.5-*	15.5	28.0	31.0	
3.3	1213DFR-3-3.3-2.5-*	17.5	33.0	31.0	
3.9	1213DFR-3-3.9-2.5-*	16.5	28.0	44.0	
4.7	1213DFR-3-4.7-2.5-*	17.5	33.0	44.0	

* - Please insert appropriate tolerance code



Please consult factory for special requirements, including non-standard values and sizes

1213DFR

Epoxy Dipped (Radial Leads)

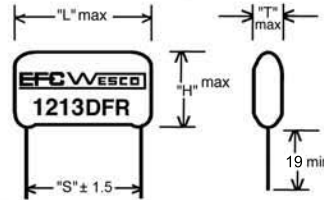
Metallized Polypropylene Capacitors

Lead Specs -
Tinned Copperweld

L	S	DIA
10.0	7.5	0.6
12.5	10.0	0.6
18.0	15.0	0.8
26.0	22.5	0.8
31.0	27.5	0.8
44.0	38.0	1.0

Dimensions and Ratings

All dimensions in mm



Cap.	400 VDC			
μF	Part #	T	H	L
.001	1213DFR-3-.001-4-*	4.0	8.0	10.0
.0012	1213DFR-3-.0012-4-*	4.0	8.0	10.0
.0015	1213DFR-3-.0015-4-*	4.0	8.0	10.0
.0022	1213DFR-3-.0022-4-*	4.0	8.0	10.0
.0027	1213DFR-3-.0027-4-*	4.0	8.0	10.0
.0039	1213DFR-3-.0039-4-*	4.0	8.5	10.0
.0047	1213DFR-3-.0047-4-*	4.0	9.0	10.0
.0056	1213DFR-3-.0056-4-*	4.0	9.0	10.0
.0068	1213DFR-3-.0068-4-*	4.5	9.0	10.0
.0082	1213DFR-3-.0082-4-*	4.5	9.0	10.0
.01	1213DFR-3-.01-4-*	4.5	9.0	10.0
.012	1213DFR-3-.012-4-*	4.5	9.0	12.5
.015	1213DFR-3-.015-4-*	4.5	9.0	12.5
.018	1213DFR-3-.018-4-*	4.5	9.0	12.5
.022	1213DFR-3-.022-4-*	5.0	9.5	12.5
.027	1213DFR-3-.027-4-*	5.0	10.0	12.5
.033	1213DFR-3-.033-4-*	5.5	11.0	12.5
.039	1213DFR-3-.039-4-*	6.0	12.0	12.5
.047	1213DFR-3-.047-4-*	6.5	12.5	12.5
.056	1213DFR-3-.056-4-*	5.5	11.0	18.0
.068	1213DFR-3-.068-4-*	6.5	12.5	18.0
.082	1213DFR-3-.082-4-*	7.0	13.0	18.0
.1	1213DFR-3-.1-4-*	7.5	14.0	18.0
.12	1213DFR-3-.12-4-*	8.0	14.5	18.0
.15	1213DFR-3-.15-4-*	8.5	16.0	18.0
.18	1213DFR-3-.18-4-*	8.0	14.0	26.0
.22	1213DFR-3-.22-4-*	8.5	16.0	26.0
.27	1213DFR-3-.27-4-*	9.0	16.5	26.0
.33	1213DFR-3-.33-4-*	9.5	18.0	26.0
.39	1213DFR-3-.39-4-*	9.5	18.0	31.0
.47	1213DFR-3-.47-4-*	10.0	19.0	31.0
.56	1213DFR-3-.56-4-*	11.0	20.0	31.0
.68	1213DFR-3-.68-4-*	12.0	22.0	31.0
.82	1213DFR-3-.82-4-*	13.0	23.0	31.0
1.0	1213DFR-3-1.0-4-*	14.0	25.0	31.0
1.2	1213DFR-3-1.2-4-*	15.0	27.0	31.0
1.5	1213DFR-3-1.5-4-*	17.0	32.0	31.0
1.8	1213DFR-3-1.8-4-*	15.0	27.0	44.0
2.2	1213DFR-3-2.2-4-*	17.0	32.0	44.0

Cap.	630 VDC			
μF	Part #	T	H	L
.001	1213DFR-3-.001-6.3-*	4.0	8.0	10.0
.0012	1213DFR-3-.0012-6.3-*	4.0	8.5	10.0
.0015	1213DFR-3-.0015-6.3-*	4.0	8.5	10.0
.0022	1213DFR-3-.0022-6.3-*	4.0	9.0	10.0
.0027	1213DFR-3-.0027-6.3-*	4.0	9.0	10.0
.0039	1213DFR-3-.0039-6.3-*	4.0	9.0	10.0
.0047	1213DFR-3-.0047-6.3-*	4.0	9.0	12.5
.0056	1213DFR-3-.0056-6.3-*	4.0	9.0	12.5
.0068	1213DFR-3-.0068-6.3-*	4.5	9.0	12.5
.0082	1213DFR-3-.0082-6.3-*	5.0	9.5	12.5
.01	1213DFR-3-.01-6.3-*	5.0	10.0	12.5
.012	1213DFR-3-.012-6.3-*	5.5	11.0	12.5
.015	1213DFR-3-.015-6.3-*	6.0	12.0	12.5
.018	1213DFR-3-.018-6.3-*	5.5	11.0	18.0
.022	1213DFR-3-.022-6.3-*	6.0	12.0	18.0
.027	1213DFR-3-.027-6.3-*	6.5	12.0	18.0
.033	1213DFR-3-.033-6.3-*	6.5	12.5	18.0
.039	1213DFR-3-.039-6.3-*	7.0	13.0	18.0
.047	1213DFR-3-.047-6.3-*	7.5	13.5	18.0
.056	1213DFR-3-.056-6.3-*	8.0	14.0	18.0
.068	1213DFR-3-.068-6.3-*	8.5	16.0	18.0
.082	1213DFR-3-.082-6.3-*	8.0	14.0	26.0
.1	1213DFR-3-.1-6.3-*	8.5	16.0	26.0
.12	1213DFR-3-.12-6.3-*	9.0	16.5	26.0
.15	1213DFR-3-.15-6.3-*	9.5	18.0	26.0
.18	1213DFR-3-.18-6.3-*	9.5	17.0	31.0
.22	1213DFR-3-.22-6.3-*	10.0	19.0	31.0
.27	1213DFR-3-.27-6.3-*	10.5	20.0	31.0
.33	1213DFR-3-.33-6.3-*	12.0	22.0	31.0
.39	1213DFR-3-.39-6.3-*	13.0	23.0	31.0
.47	1213DFR-3-.47-6.3-*	14.0	25.0	31.0
.56	1213DFR-3-.56-6.3-*	15.0	27.0	31.0
.68	1213DFR-3-.68-6.3-*	17.0	32.0	31.0
.82	1213DFR-3-.82-6.3-*	15.0	27.0	44.0
1.0	1213DFR-3-1.0-6.3-*	17.0	32.0	44.0

* - Please insert appropriate tolerance code

Series 1906 Polystyrene and Foil

Features: Flame retardant to UL94, high insulation resistance, very low dielectric absorption, long term stability, negative linear temperature coefficient.

Applications: Timing circuits, filters.

Packaging: Axial wrap and fill (TC), axial lead epoxy tube (EC).

Special Options: Different temperature coefficients (A1906, T1906).

Specifications

1) Temperature Range

-55°C to 85°C at rated voltage.

2) Capacitance

Capacitors shall be measured at 1 KHz \pm 20 HZ. Measurements shall be taken at 25°C.

3) Dielectric Strength

At 25°C, 200% of rated voltage when applied terminal to terminal for one minute through a current limiting resistance.

4) Insulation Resistance

At 25°C after 2 minutes charge time at rated voltage or 500 VDC, whichever is less, the minimum IR shall be 500,000 Megohm-Microfarads, but need not exceed 1,000,000 Megohms.

5) Humidity Resistance

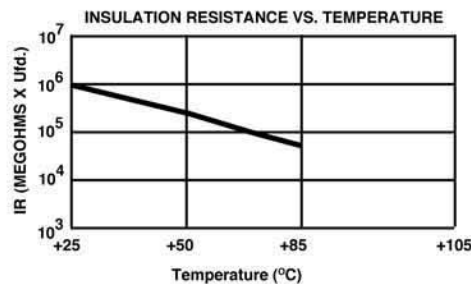
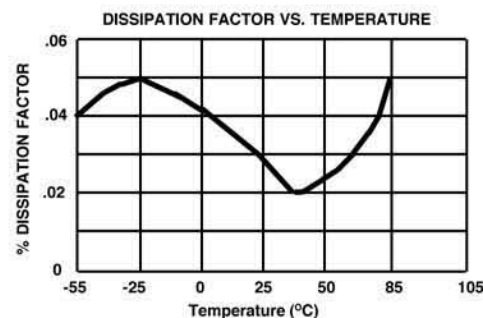
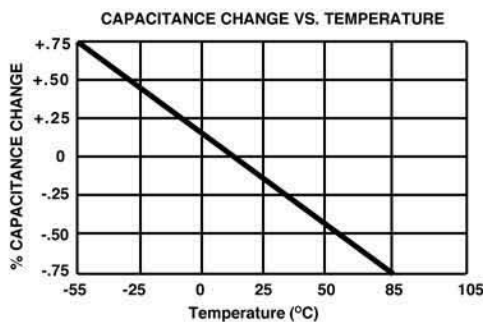
Series 1906 shall meet the requirements of MIL-STD. 202, Method 103B.

6) Dissipation Factor

Shall be 0.1% max. when measured at 1KHz and 25°C.

7) Life Test

Will withstand the application of 140% rated voltage at + 85°C for 250 hours with not more than one failure in 12 permitted.



Typical Temperature Curves Polystyrene and Foil



1906TC Tubular Wrap & Fill

Polystyrene and Foil Capacitors

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG



Dimensions and Ratings

Cap.	100 VDC			Cap.	200 VDC		
μF	Part #	D	L	μF	Part #	D	L
.001	1906TC-3-.001-1-*	.180	.606	.001	1906TC-3-.001-2-*	.180	.606
.0012	1906TC-3-.0012-1-*	.180	.606	.0012	1906TC-3-.0012-2-*	.180	.606
.0015	1906TC-3-.0015-1-*	.180	.606	.0015	1906TC-3-.0015-2-*	.180	.606
.0022	1906TC-3-.0022-1-*	.180	.606	.0022	1906TC-3-.0022-2-*	.220	.606
.0027	1906TC-3-.0027-1-*	.180	.606	.0027	1906TC-3-.0027-2-*	.240	.606
.0039	1906TC-3-.0039-1-*	.210	.606	.0039	1906TC-3-.0039-2-*	.190	.606
.0047	1906TC-3-.0047-1-*	.220	.606	.0047	1906TC-3-.0047-2-*	.210	.606
.0056	1906TC-3-.0056-1-*	.240	.606	.0056	1906TC-3-.0056-2-*	.230	.606
.0068	1906TC-3-.0068-1-*	.180	.606	.0068	1906TC-3-.0068-2-*	.250	.606
.0082	1906TC-3-.0082-1-*	.200	.606	.0082	1906TC-3-.0082-2-*	.270	.606
.01	1906TC-3-.01-1-*	.220	.606	.01	1906TC-3-.01-2-*	.300	.606
.012	1906TC-3-.012-1-*	.230	.606	.012	1906TC-3-.012-2-*	.260	.731
.015	1906TC-3-.015-1-*	.260	.606	.015	1906TC-3-.015-2-*	.290	.731
.018	1906TC-3-.018-1-*	.280	.606	.018	1906TC-3-.018-2-*	.320	.731
.022	1906TC-3-.022-1-*	.250	.731	.022	1906TC-3-.022-2-*	.350	.731
.027	1906TC-3-.027-1-*	.280	.731	.027	1906TC-3-.027-2-*	.340	.856
.033	1906TC-3-.033-1-*	.300	.731	.033	1906TC-3-.033-2-*	.370	.856
.039	1906TC-3-.039-1-*	.330	.731	.039	1906TC-3-.039-2-*	.400	.856
.047	1906TC-3-.047-1-*	.310	.856	.047	1906TC-3-.047-2-*	.440	.856
.056	1906TC-3-.056-1-*	.340	.856	.056	1906TC-3-.056-2-*	.430	.981
.068	1906TC-3-.068-1-*	.370	.856	.068	1906TC-3-.068-2-*	.470	.981
.082	1906TC-3-.082-1-*	.410	.856	.082	1906TC-3-.082-2-*	.510	.981
.1	1906TC-3-.1-1-*	.400	.981	.1	1906TC-3-.1-2-*	.480	1.265
.12	1906TC-3-.12-1-*	.440	.981	.12	1906TC-3-.12-2-*	.530	1.265
.15	1906TC-3-.15-1-*	.490	.981	.15	1906TC-3-.15-2-*	.580	1.265
.18	1906TC-3-.18-1-*	.450	1.265	.18	1906TC-3-.18-2-*	.640	1.265
.22	1906TC-3-.22-1-*	.500	1.265	.22	1906TC-3-.22-2-*	.620	1.515
.27	1906TC-3-.27-1-*	.550	1.265	.27	1906TC-3-.27-2-*	.680	1.515
.33	1906TC-3-.33-1-*	.610	1.265	.33	1906TC-3-.33-2-*	.750	1.515
.39	1906TC-3-.39-1-*	.590	1.515				
.47	1906TC-3-.47-1-*	.640	1.515				
.56	1906TC-3-.56-1-*	.700	1.515				

This dielectric is available in limited quantities.
Please consult factory on all size and voltage requests.

* - Please insert appropriate tolerance code



1906TC Tubular Wrap & Fill

Polystyrene and Foil Capacitors

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG



Dimensions and Ratings

Cap.	400 VDC			Cap.	600 VDC		
μF	Part #	D	L	μF	Part #	D	L
.001	1906TC-3-.001-4-*	.230	.606	.001	1906TC-3-.001-6-*	.240	.606
.0012	1906TC-3-.0012-4-*	.250	.606	.0012	1906TC-3-.0012-6-*	.260	.606
.0015	1906TC-3-.0015-4-*	.170	.606	.0015	1906TC-3-.0015-6-*	.290	.606
.0022	1906TC-3-.0022-4-*	.200	.606	.0022	1906TC-3-.0022-6-*	.250	.731
.0027	1906TC-3-.0027-4-*	.220	.606	.0027	1906TC-3-.0027-6-*	.270	.731
.0039	1906TC-3-.0039-4-*	.260	.606	.0039	1906TC-3-.0039-6-*	.320	.731
.0047	1906TC-3-.0047-4-*	.280	.606	.0047	1906TC-3-.0047-6-*	.350	.731
.0056	1906TC-3-.0056-4-*	.240	.731	.0056	1906TC-3-.0056-6-*	.320	.856
.0068	1906TC-3-.0068-4-*	.270	.731	.0068	1906TC-3-.0068-6-*	.350	.856
.0082	1906TC-3-.0082-4-*	.290	.731	.0082	1906TC-3-.0082-6-*	.390	.856
.01	1906TC-3-.01-4-*	.320	.731	.01	1906TC-3-.01-6-*	.370	.981
.012	1906TC-3-.012-4-*	.350	.731	.012	1906TC-3-.012-6-*	.400	.981
.015	1906TC-3-.015-4-*	.340	.856	.015	1906TC-3-.015-6-*	.450	.981
.018	1906TC-3-.018-4-*	.370	.856	.018	1906TC-3-.018-6-*	.490	.981
.022	1906TC-3-.022-4-*	.400	.856	.022	1906TC-3-.022-6-*	.450	1.265
.027	1906TC-3-.027-4-*	.390	.981	.027	1906TC-3-.027-6-*	.500	1.265
.033	1906TC-3-.033-4-*	.430	.981	.033	1906TC-3-.033-6-*	.550	1.265
.039	1906TC-3-.039-4-*	.470	.981	.039	1906TC-3-.039-6-*	.590	1.265
.047	1906TC-3-.047-4-*	.510	.981	.047	1906TC-3-.047-6-*	.650	1.265
.056	1906TC-3-.056-4-*	.470	1.265	.056	1906TC-3-.056-6-*	.610	1.515
.068	1906TC-3-.068-4-*	.520	1.265	.068	1906TC-3-.068-6-*	.670	1.515
.082	1906TC-3-.082-4-*	.570	1.265	.082	1906TC-3-.082-6-*	.740	1.515
.1	1906TC-3-.1-4-*	.630	1.265				
.12	1906TC-3-.12-4-*	.600	1.515				
.15	1906TC-3-.15-4-*	.670	1.515				
.18	1906TC-3-.18-4-*	.730	1.515				

This dielectric is available in limited quantities.
Please consult factory on all size and voltage requests.

* - Please insert appropriate tolerance code

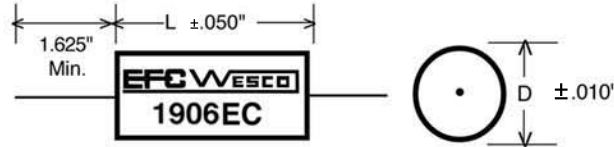


Please consult factory for special requirements, including non-standard values and sizes

1906EC
Tubular Plastic Case
(Axial Leads)

**Polystyrene and
Foil Capacitors**

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG



Dimensions and Ratings

Cap.	50 VDC			Cap.	100 VDC			Cap.	200 VDC		
μF	Part #	D	L	μF	Part #	D	L	μF	Part #	D	L
.001	1906EC-3-.001-0-*	.187	.500	.001	1906EC-3-.001-1-*	.187	.500	.001	1906EC-3-.001-2-*	.225	.375
.0012	1906EC-3-.0012-0-*	.187	.500	.0012	1906EC-3-.0012-1-*	.187	.500	.0012	1906EC-3-.0012-2-*	.225	.375
.0015	1906EC-3-.0015-0-*	.187	.500	.0015	1906EC-3-.0015-1-*	.187	.500	.0015	1906EC-3-.0015-2-*	.225	.375
.0022	1906EC-3-.0022-0-*	.225	.500	.0022	1906EC-3-.0022-1-*	.225	.500	.0022	1906EC-3-.0022-2-*	.225	.500
.0027	1906EC-3-.0027-0-*	.225	.500	.0027	1906EC-3-.0027-1-*	.225	.500	.0027	1906EC-3-.0027-2-*	.225	.500
.0039	1906EC-3-.0039-0-*	.187	.500	.0039	1906EC-3-.0039-1-*	.225	.500	.0039	1906EC-3-.0039-2-*	.225	.500
.0047	1906EC-3-.0047-0-*	.187	.500	.0047	1906EC-3-.0047-1-*	.225	.500	.0047	1906EC-3-.0047-2-*	.260	.550
.0056	1906EC-3-.0056-0-*	.225	.500	.0056	1906EC-3-.0056-1-*	.225	.500	.0056	1906EC-3-.0056-2-*	.250	.625
.0068	1906EC-3-.0068-0-*	.225	.500	.0068	1906EC-3-.0068-1-*	.225	.500	.0068	1906EC-3-.0068-2-*	.250	.625
.0082	1906EC-3-.0082-0-*	.225	.500	.0082	1906EC-3-.0082-1-*	.260	.550	.0082	1906EC-3-.0082-2-*	.250	.625
.01	1906EC-3-.01-0-*	.225	.500	.01	1906EC-3-.01-1-*	.260	.550	.01	1906EC-3-.01-2-*	.312	.625
.012	1906EC-3-.012-0-*	.260	.550	.012	1906EC-3-.012-1-*	.250	.625	.012	1906EC-3-.012-2-*	.312	.625
.015	1906EC-3-.015-0-*	.250	.625	.015	1906EC-3-.015-1-*	.250	.625	.015	1906EC-3-.015-2-*	.312	.750
.018	1906EC-3-.018-0-*	.250	.625	.018	1906EC-3-.018-1-*	.312	.625	.018	1906EC-3-.018-2-*	.312	.750
.022	1906EC-3-.022-0-*	.312	.625	.022	1906EC-3-.022-1-*	.312	.750	.022	1906EC-3-.022-2-*	.375	.750
.027	1906EC-3-.027-0-*	.312	.625	.027	1906EC-3-.027-1-*	.312	.750	.027	1906EC-3-.027-2-*	.375	.750
.033	1906EC-3-.033-0-*	.312	.625	.033	1906EC-3-.033-1-*	.312	.750	.033	1906EC-3-.033-2-*	.375	.875
.039	1906EC-3-.039-0-*	.312	.750	.039	1906EC-3-.039-1-*	.375	.750	.039	1906EC-3-.039-2-*	.437	.875
.047	1906EC-3-.047-0-*	.375	.750	.047	1906EC-3-.047-1-*	.375	.750	.047	1906EC-3-.047-2-*	.437	.875
.056	1906EC-3-.056-0-*	.375	.750	.056	1906EC-3-.056-1-*	.375	.750	.056	1906EC-3-.056-2-*	.500	.875
.068	1906EC-3-.068-0-*	.375	.750	.068	1906EC-3-.068-1-*	.375	.875	.068	1906EC-3-.068-2-*	.437	1.190
.082	1906EC-3-.082-0-*	.375	.875	.082	1906EC-3-.082-1-*	.437	.875	.082	1906EC-3-.082-2-*	.500	1.190
.1	1906EC-3-.1-0-*	.437	.875	.1	1906EC-3-.1-1-*	.437	.875				
.12	1906EC-3-.12-0-*	.437	.875	.12	1906EC-3-.12-1-*	.500	.875				
.15	1906EC-3-.15-0-*	.500	.875	.15	1906EC-3-.15-1-*	.500	1.190				
.18	1906EC-3-.18-0-*	.500	1.190	.18	1906EC-3-.18-1-*	.500	1.190				
.22	1906EC-3-.22-0-*	.500	1.190								

This dielectric is available in limited quantities.
Please consult factory on all size and voltage requests.

* - Please insert appropriate tolerance code

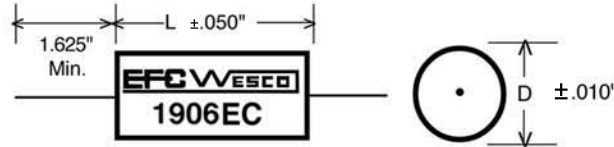


Please consult factory for special requirements, including non-standard values and sizes

1906EC
Tubular Plastic Case
(Axial Leads)

**Polystyrene and
Foil Capacitors**

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG



Dimensions and Ratings

Cap.	400 VDC			Cap.	600 VDC		
μF	Part #	D	L	μF	Part #	D	L
.001	1906EC-3-.001-4*	.187	.500	.001	1906EC-3-.001-6*	.225	.625
.0012	1906EC-3-.0012-4*	.225	.500	.0012	1906EC-3-.0012-6*	.225	.625
.0015	1906EC-3-.0015-4*	.225	.500	.0015	1906EC-3-.0015-6*	.250	.625
.0022	1906EC-3-.0022-4*	.260	.550	.0022	1906EC-3-.0022-6*	.312	.625
.0027	1906EC-3-.0027-4*	.260	.550	.0027	1906EC-3-.0027-6*	.312	.625
.0039	1906EC-3-.0039-4*	.250	.625	.0039	1906EC-3-.0039-6*	.312	.750
.0047	1906EC-3-.0047-4*	.250	.625	.0047	1906EC-3-.0047-6*	.375	.750
.0056	1906EC-3-.0056-4*	.312	.625	.0056	1906EC-3-.0056-6*	.375	.750
.0068	1906EC-3-.0068-4*	.312	.625	.0068	1906EC-3-.0068-6*	.375	.875
.0082	1906EC-3-.0082-4*	.312	.750	.0082	1906EC-3-.0082-6*	.437	.875
.01	1906EC-3-.01-4*	.312	.750	.01	1906EC-3-.01-6*	.437	1.190
.012	1906EC-3-.012-4*	.375	.750	.012	1906EC-3-.012-6*	.437	1.190
.015	1906EC-3-.015-4*	.375	.750	.015	1906EC-3-.015-6*	.437	1.190
.018	1906EC-3-.018-4*	.375	.875	.018	1906EC-3-.018-6*	.500	1.190
.022	1906EC-3-.022-4*	.437	.875	.022	1906EC-3-.022-6*	.500	1.190
.027	1906EC-3-.027-4*	.437	.875				
.033	1906EC-3-.033-4*	.500	.875				
.039	1906EC-3-.039-4*	.500	1.190				
.047	1906EC-3-.047-4*	.500	1.190				

This dielectric is available in limited quantities.
Please consult factory on all size and voltage requests.

* - Please insert appropriate tolerance code

Series 1613 Metallized Polycarbonate

**Limited Availability, Please Call Factory.
Recommend Switch to Polyphenylene Sulfide 2113 Series.**

Features: Flame retardant to UL94, miniature size, superior stability, self healing, high insulation resistance, low dissipation factor, high frequency operation.

Applications: Timing circuits, filters, high current applications.

Specifications

1) Temperature Range

-55°C to 125°C at rated voltage.

2) Capacitance

Capacitors shall be measured at 1 KHz \pm 20 HZ at 25°C.

3) Dielectric Strength

At 25°C, 150% of rated voltage when applied terminal to terminal for one minute through a current limiting resistance.

4) Insulation Resistance

At 25°C after 2 minutes charge time at rated voltage or 500 VDC, whichever is less, the minimum IR shall be 50,000 Megohm-Microfarads, but need not exceed 100,000 Megohms for voltages greater than 75 VDC, and 15,000 Megohm-Microfarads, but need not exceed 50,000 Megohms for 75 VDC or less.

5) Humidity Resistance

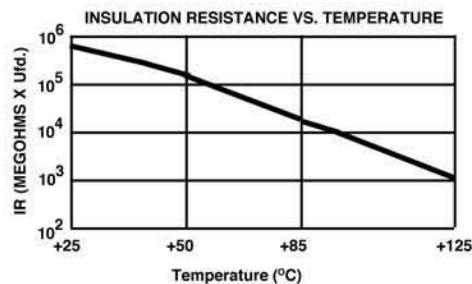
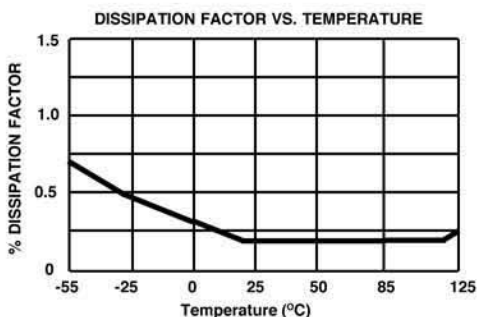
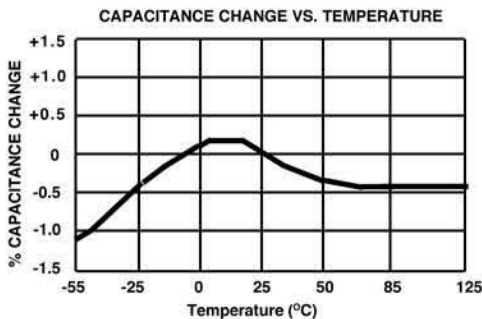
Series 1613 shall meet the requirements of MIL-STD. 202, Method 103B.

6) Dissipation Factor

Shall be 0.3% max. when measured at 1KHZ and 25°C.

7) Life Test

Will withstand the application of 140% rated voltage at + 125°C for 250 hours with not more than one failure in 12 permitted.



Typical Temperature Curves Metallized Polycarbonate

Series 2113 Metallized Polyphenylene Sulfide

Features: Flame retardant to UL94, miniature size, long term stability, high insulation resistance, low dissipation factor, high temperature rating.

Applications: Timing circuits, filters, replacement for Polycarbonate Film.

Packaging: Axial wrap and fill (TF, TC), radial lead box (EFR), axial lead epoxy tube (EC).

Specifications

1) Temperature Range

-55°C to +125°C at rated voltage.

2) Capacitance

0.001μF to 2μF

3) Dielectric Strength

At 25°C, 150% of rated voltage when applied terminal to terminal for one minute through a current limiting resistance.

4) Insulation Resistance

At 25°C after 2 minutes charge time at rated voltage or 500 VDC, whichever is less, the minimum IR shall be 50,000 Megohm-Microfarads, but need not exceed 100,000 Megohms for voltages greater than 75 VDC, and 15,000 Megohm-Microfarads, but need not exceed 50,000 Megohms for 75 VDC or less.

5) Humidity Resistance

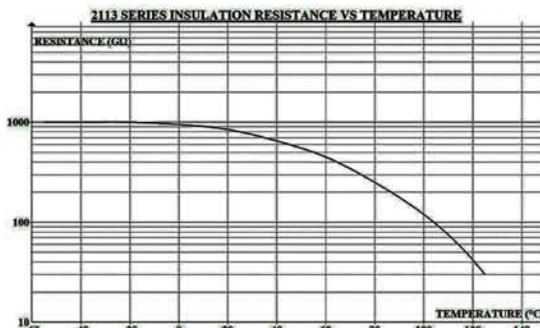
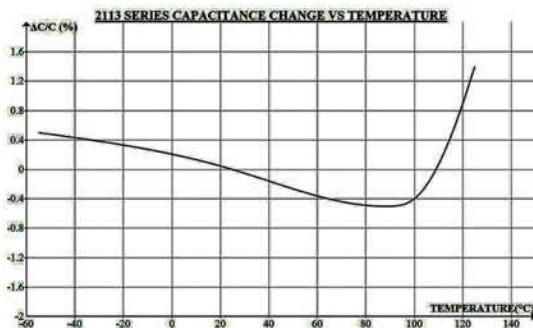
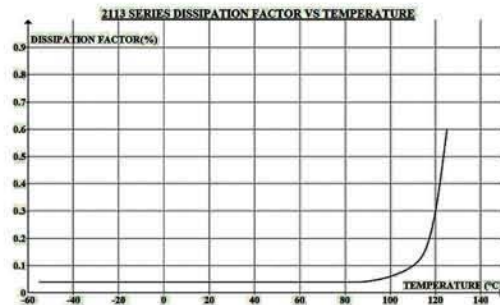
Series 2113 shall meet the requirements of MIL-STD. 202, Method 103B.

6) Dissipation Factor

Shall be 0.3% max. when measured at 1KHz and 25°C.

7) Life Test

Will withstand the application of 140% rated voltage at + 125°C for 250 hours with not more than one failure in 12 permitted.



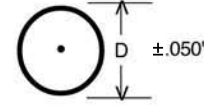
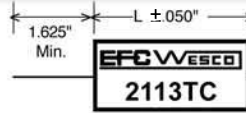


2113TC Tubular Wrap & Fill

Metallized Polyphenylene Sulfide Capacitors

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG

Dimensions and Ratings



50 VDC				75 VDC				100 VDC			
Cap. μ F	Part #	D	L	Cap. μ F	Part #	D	L	Cap. μ F	Part #	D	L
.001	2113TC-3-.001-0-*	.180	.406	.001	2113TC-3-.001-.75-*	.180	.406	.001	2113TC-3-.001-1-*	.180	.406
.0012	2113TC-3-.0012-0-*	.180	.406	.0012	2113TC-3-.0012-.75-*	.180	.406	.0012	2113TC-3-.0012-1-*	.180	.406
.0015	2113TC-3-.0015-0-*	.180	.406	.0015	2113TC-3-.0015-.75-*	.180	.406	.0015	2113TC-3-.0015-1-*	.180	.406
.0022	2113TC-3-.0022-0-*	.180	.406	.0022	2113TC-3-.0022-.75-*	.180	.406	.0022	2113TC-3-.0022-1-*	.180	.406
.0027	2113TC-3-.0027-0-*	.180	.406	.0027	2113TC-3-.0027-.75-*	.180	.406	.0027	2113TC-3-.0027-1-*	.180	.406
.0039	2113TC-3-.0039-0-*	.180	.406	.0039	2113TC-3-.0039-.75-*	.180	.406	.0039	2113TC-3-.0039-1-*	.180	.406
.0047	2113TC-3-.0047-0-*	.180	.406	.0047	2113TC-3-.0047-.75-*	.180	.406	.0047	2113TC-3-.0047-1-*	.180	.406
.0056	2113TC-3-.0056-0-*	.180	.406	.0056	2113TC-3-.0056-.75-*	.180	.406	.0056	2113TC-3-.0056-1-*	.180	.406
.0068	2113TC-3-.0068-0-*	.180	.406	.0068	2113TC-3-.0068-.75-*	.180	.406	.0068	2113TC-3-.0068-1-*	.180	.406
.0082	2113TC-3-.0082-0-*	.180	.406	.0082	2113TC-3-.0082-.75-*	.180	.406	.0082	2113TC-3-.0082-1-*	.180	.406
.01	2113TC-3-.01-0-*	.180	.406	.01	2113TC-3-.01-.75-*	.180	.406	.01	2113TC-3-.01-1-*	.180	.406
.012	2113TC-3-.012-0-*	.180	.406	.012	2113TC-3-.012-.75-*	.180	.406	.012	2113TC-3-.012-1-*	.180	.406
.015	2113TC-3-.015-0-*	.180	.406	.015	2113TC-3-.015-.75-*	.180	.406	.015	2113TC-3-.015-1-*	.180	.406
.018	2113TC-3-.018-0-*	.180	.406	.018	2113TC-3-.018-.75-*	.180	.406	.018	2113TC-3-.018-1-*	.180	.406
.022	2113TC-3-.022-0-*	.180	.406	.022	2113TC-3-.022-.75-*	.180	.406	.022	2113TC-3-.022-1-*	.180	.406
.027	2113TC-3-.027-0-*	.180	.406	.027	2113TC-3-.027-.75-*	.180	.406	.027	2113TC-3-.027-1-*	.180	.406
.033	2113TC-3-.033-0-*	.180	.406	.033	2113TC-3-.033-.75-*	.180	.406	.033	2113TC-3-.033-1-*	.180	.406
.039	2113TC-3-.039-0-*	.180	.406	.039	2113TC-3-.039-.75-*	.180	.406	.039	2113TC-3-.039-1-*	.180	.406
.047	2113TC-3-.047-0-*	.180	.406	.047	2113TC-3-.047-.75-*	.180	.406	.047	2113TC-3-.047-1-*	.190	.406
.056	2113TC-3-.056-0-*	.180	.406	.056	2113TC-3-.056-.75-*	.180	.406	.056	2113TC-3-.056-1-*	.210	.406
.068	2113TC-3-.068-0-*	.180	.406	.068	2113TC-3-.068-.75-*	.200	.406	.068	2113TC-3-.068-1-*	.230	.406
.082	2113TC-3-.082-0-*	.180	.406	.082	2113TC-3-.082-.75-*	.220	.406	.082	2113TC-3-.082-1-*	.200	.468
.1	2113TC-3-.1-0-*	.180	.406	.1	2113TC-3-.1-.75-*	.240	.406	.1	2113TC-3-.1-1-*	.220	.468
.12	2113TC-3-.12-0-*	.190	.406	.12	2113TC-3-.12-.75-*	.260	.406	.12	2113TC-3-.12-1-*	.240	.468
.15	2113TC-3-.15-0-*	.200	.406	.15	2113TC-3-.15-.75-*	.230	.468	.15	2113TC-3-.15-1-*	.220	.531
.18	2113TC-3-.18-0-*	.220	.406	.18	2113TC-3-.18-.75-*	.250	.468	.18	2113TC-3-.18-1-*	.240	.531
.22	2113TC-3-.22-0-*	.240	.406	.22	2113TC-3-.22-.75-*	.270	.468	.22	2113TC-3-.22-1-*	.270	.531
.27	2113TC-3-.27-0-*	.210	.468	.27	2113TC-3-.27-.75-*	.300	.468	.27	2113TC-3-.27-1-*	.240	.656
.33	2113TC-3-.33-0-*	.230	.468	.33	2113TC-3-.33-.75-*	.330	.468	.33	2113TC-3-.33-1-*	.260	.656
.39	2113TC-3-.39-0-*	.250	.468	.39	2113TC-3-.39-.75-*	.300	.531	.39	2113TC-3-.39-1-*	.280	.656
.47	2113TC-3-.47-0-*	.230	.531	.47	2113TC-3-.47-.75-*	.330	.531	.47	2113TC-3-.47-1-*	.310	.656
.56	2113TC-3-.56-0-*	.250	.531	.56	2113TC-3-.56-.75-*	.360	.531	.56	2113TC-3-.56-1-*	.340	.656
.68	2113TC-3-.68-0-*	.280	.531	.68	2113TC-3-.68-.75-*	.390	.531	.68	2113TC-3-.68-1-*	.342	.781
.82	2113TC-3-.82-0-*	.300	.531	.82	2113TC-3-.82-.75-*	.350	.656	.82	2113TC-3-.82-1-*	.350	.781
1.0	2113TC-3-1.0-0-*	.330	.531	1.0	2113TC-3-1.0-.75-*	.380	.656	1.0	2113TC-3-1.0-1-*	.390	.781
1.25	2113TC-3-1.25-0-*	.300	.656	1.25	2113TC-3-1.25-.75-*	.430	.656	1.25	2113TC-3-1.25-1-*	.430	.781
1.5	2113TC-3-1.5-0-*	.330	.656	1.5	2113TC-3-1.5-.75-*	.470	.656	1.5	2113TC-3-1.5-1-*	.420	.906
2.0	2113TC-3-2.0-0-*	.380	.656	2.0	2113TC-3-2.0-.75-*	.460	.781	2.0	2113TC-3-2.0-1-*	.480	.906
3.0	2113TC-3-3.0-0-*	.400	.781	3.0	2113TC-3-3.0-.75-*	.560	.781	3.0	2113TC-3-3.0-1-*	.500	1.190
4.0	2113TC-3-4.0-0-*	.460	.781	4.0	2113TC-3-4.0-.75-*	.580	.906	4.0	2113TC-3-4.0-1-*	.570	1.190
5.0	2113TC-3-5.0-0-*	.450	.906	5.0	2113TC-3-5.0-.75-*	.650	.906	5.0	2113TC-3-5.0-1-*	.560	1.440
6.0	2113TC-3-6.0-0-*	.500	.906	6.0	2113TC-3-6.0-.75-*	.590	1.190	6.0	2113TC-3-6.0-1-*	.610	1.440
8.0	2113TC-3-8.0-0-0-*	.490	1.190	8.0	2113TC-3-8.0-0-.75-*	.680	1.190	8.0	2113TC-3-8.0-0-1-*	.710	1.440
10.0	2113TC-3-10.0-0-*	.540	1.190	10.0	2113TC-3-10.0-.75-*	.680	1.440	10.0	2113TC-3-10.0-1-*	.750	1.570
12.0	2113TC-3-12.0-0-*	.590	1.190	12.0	2113TC-3-12.0-.75-*	.740	1.440	12.0	2113TC-3-12.0-1-*	.820	1.570
15.0	2113TC-3-15.0-0-*	.580	1.440					15.0	2113TC-3-15.0-1-*	.870	1.690
20.0	2113TC-3-20.0-0-*	.670	1.440					20.0	2113TC-3-20.0-1-*	.920	1.940

* - Please insert appropriate tolerance code



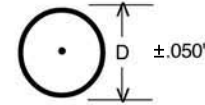
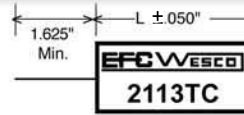
Please consult factory for special requirements, including non-standard values and sizes

2113TC
Tubular Wrap & Fill

**Metallized
Polyphenylene
Sulfide Capacitors**

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG

**Dimensions
and Ratings**



Cap.	160 VDC		
μF	Part #	D	L
.001	2113TC-3-.001-1.6-*	.200	.406
.0012	2113TC-3-.0012-1.6-*	.200	.406
.0015	2113TC-3-.0015-1.6-*	.200	.406
.0022	2113TC-3-.0022-1.6-*	.200	.406
.0027	2113TC-3-.0027-1.6-*	.200	.406
.0039	2113TC-3-.0039-1.6-*	.200	.406
.0047	2113TC-3-.0047-1.6-*	.200	.406
.0056	2113TC-3-.0056-1.6-*	.200	.406
.0068	2113TC-3-.0068-1.6-*	.200	.406
.0082	2113TC-3-.0082-1.6-*	.200	.406
.01	2113TC-3-.01-1.6-*	.200	.406
.012	2113TC-3-.012-1.6-*	.200	.406
.015	2113TC-3-.015-1.6-*	.200	.406
.018	2113TC-3-.018-1.6-*	.200	.406
.022	2113TC-3-.022-1.6-*	.210	.406
.027	2113TC-3-.027-1.6-*	.220	.406
.033	2113TC-3-.033-1.6-*	.240	.406
.039	2113TC-3-.039-1.6-*	.260	.406
.047	2113TC-3-.047-1.6-*	.200	.531
.056	2113TC-3-.056-1.6-*	.210	.531
.068	2113TC-3-.068-1.6-*	.230	.531
.082	2113TC-3-.082-1.6-*	.250	.531
.1	2113TC-3-.1-1.6-*	.270	.531
.12	2113TC-3-.12-1.6-*	.290	.531
.15	2113TC-3-.15-1.6-*	.270	.656
.18	2113TC-3-.18-1.6-*	.290	.656
.22	2113TC-3-.22-1.6-*	.310	.656
.27	2113TC-3-.27-1.6-*	.350	.656
.33	2113TC-3-.33-1.6-*	.380	.656
.39	2113TC-3-.39-1.6-*	.360	.781
.47	2113TC-3-.47-1.6-*	.390	.781
.56	2113TC-3-.56-1.6-*	.420	.781
.68	2113TC-3-.68-1.6-*	.410	.906
.82	2113TC-3-.82-1.6-*	.450	.906
1.0	2113TC-3-1.0-1.6-*	.430	1.190
1.25	2113TC-3-1.25-1.6-*	.470	1.190
1.5	2113TC-3-1.5-1.6-*	.510	1.190
2.0	2113TC-3-2.0-1.6-*	.590	1.190
3.0	2113TC-3-3.0-1.6-*	.630	1.440
4.0	2113TC-3-4.0-1.6-*	.720	1.406
5.0	2113TC-3-5.0-1.6-*	.760	1.570
6.0	2113TC-3-6.0-1.6-*	.830	1.570
8.0	2113TC-3-8.0-0.1.6-*	.870	1.690
10.0	2113TC-3-10.0-1.6-*	.970	1.820
12.0	2113TC-3-12.0-1.6-*	1.020	1.820
15.0	2113TC-3-15.0-1.6-*	1.130	1.940
20.0	2113TC-3-20.0-1.6-*	1.300	1.940

Cap.	200 VDC		
μF	Part #	D	L
.001	2113TC-3-.001-2-*	.200	.406
.0012	2113TC-3-.0012-2-*	.200	.406
.0015	2113TC-3-.0015-2-*	.200	.406
.0022	2113TC-3-.0022-2-*	.200	.406
.0027	2113TC-3-.0027-2-*	.200	.406
.0039	2113TC-3-.0039-2-*	.200	.406
.0047	2113TC-3-.0047-2-*	.200	.406
.0056	2113TC-3-.0056-2-*	.200	.406
.0068	2113TC-3-.0068-2-*	.200	.406
.0082	2113TC-3-.0082-2-*	.200	.406
.01	2113TC-3-.01-2-*	.200	.406
.012	2113TC-3-.012-2-*	.200	.406
.015	2113TC-3-.015-2-*	.200	.406
.018	2113TC-3-.018-2-*	.220	.406
.022	2113TC-3-.022-2-*	.240	.406
.027	2113TC-3-.027-2-*	.260	.406
.033	2113TC-3-.033-2-*	.200	.531
.039	2113TC-3-.039-2-*	.210	.531
.047	2113TC-3-.047-2-*	.230	.531
.056	2113TC-3-.056-2-*	.250	.531
.068	2113TC-3-.068-2-*	.270	.531
.082	2113TC-3-.082-2-*	.290	.531
.1	2113TC-3-.1-2-*	.320	.531
.12	2113TC-3-.12-2-*	.350	.531
.15	2113TC-3-.15-2-*	.310	.656
.18	2113TC-3-.18-2-*	.340	.656
.22	2113TC-3-.22-2-*	.370	.656
.27	2113TC-3-.27-2-*	.410	.656
.33	2113TC-3-.33-2-*	.390	.781
.39	2113TC-3-.39-2-*	.420	.781
.47	2113TC-3-.47-2-*	.410	.906
.56	2113TC-3-.56-2-*	.450	.906
.68	2113TC-3-.68-2-*	.490	.906
.82	2113TC-3-.82-2-*	.460	1.190
1.0	2113TC-3-1.0-2-*	.500	1.190
1.25	2113TC-3-1.25-2-*	.560	1.190
1.5	2113TC-3-1.5-2-*	.610	1.190
2.0	2113TC-3-2.0-2-*	.610	1.440
3.0	2113TC-3-3.0-2-*	.740	1.440
4.0	2113TC-3-4.0-2-*	.810	1.570
5.0	2113TC-3-5.0-2-*	.860	1.690
6.0	2113TC-3-6.0-2-*	.900	1.820
8.0	2113TC-3-8.0-0.2-*	1.040	1.820
10.0	2113TC-3-10.0-2-*	1.110	1.940
12.0	2113TC-3-12.0-2-*	1.130	2.250
15.0	2113TC-3-15.0-2-*	1.260	2.250

* - Please insert appropriate tolerance code



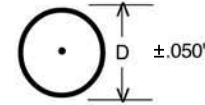
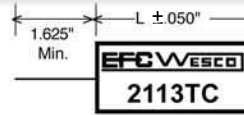
Please consult factory for special requirements, including non-standard values and sizes

2113TC
Tubular Wrap & Fill

**Metallized
Polyphenylene
Sulfide Capacitors**

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG

**Dimensions
and Ratings**



Cap.		400 VDC		
μF	Part #	D	L	
.001	2113TC-3-.001-4-*	.200	.406	
.0012	2113TC-3-.0012-4-*	.200	.406	
.0015	2113TC-3-.0015-4-*	.200	.406	
.0022	2113TC-3-.0022-4-*	.200	.406	
.0027	2113TC-3-.0027-4-*	.200	.406	
.0039	2113TC-3-.0039-4-*	.200	.406	
.0047	2113TC-3-.0047-4-*	.200	.406	
.0056	2113TC-3-.0056-4-*	.200	.406	
.0068	2113TC-3-.0068-4-*	.220	.406	
.0082	2113TC-3-.0082-4-*	.240	.406	
.01	2113TC-3-.01-4-*	.260	.406	
.012	2113TC-3-.012-4-*	.200	.531	
.015	2113TC-3-.015-4-*	.220	.531	
.018	2113TC-3-.018-4-*	.230	.531	
.022	2113TC-3-.022-4-*	.250	.531	
.027	2113TC-3-.027-4-*	.270	.531	
.033	2113TC-3-.033-4-*	.300	.531	
.039	2113TC-3-.039-4-*	.270	.656	
.047	2113TC-3-.047-4-*	.290	.656	
.056	2113TC-3-.056-4-*	.320	.656	
.068	2113TC-3-.068-4-*	.340	.656	
.082	2113TC-3-.082-4-*	.370	.656	
.1	2113TC-3-.1-4-*	.360	.781	
.12	2113TC-3-.12-4-*	.390	.781	
.15	2113TC-3-.15-4-*	.430	.781	
.18	2113TC-3-.18-4-*	.420	.906	
.22	2113TC-3-.22-4-*	.460	.906	
.27	2113TC-3-.27-4-*	.510	.906	
.33	2113TC-3-.33-4-*	.560	.906	
.39	2113TC-3-.39-4-*	.510	1.190	
.47	2113TC-3-.47-4-*	.560	1.190	
.56	2113TC-3-.56-4-*	.600	1.190	
.68	2113TC-3-.68-4-*	.660	1.190	
.82	2113TC-3-.82-4-*	.640	1.440	
1.0	2113TC-3-1.0-4-*	.700	1.440	
1.25	2113TC-3-1.25-4-*	.780	1.440	
1.5	2113TC-3-1.5-4-*	.810	1.570	
2.0	2113TC-3-2.0-4-*	.890	1.690	
3.0	2113TC-3-3.0-4-*	.990	1.940	
4.0	2113TC-3-4.0-4-*	1.140	1.940	
5.0	2113TC-3-5.0-4-*	1.180	2.250	

Cap.		600 VDC		
μF	Part #	D	L	
.001	2113TC-3-.001-6-*	.200	.531	
.0012	2113TC-3-.0012-6-*	.200	.531	
.0015	2113TC-3-.0015-6-*	.200	.531	
.0022	2113TC-3-.0022-6-*	.200	.531	
.0027	2113TC-3-.0027-6-*	.200	.531	
.0039	2113TC-3-.0039-6-*	.200	.531	
.0047	2113TC-3-.0047-6-*	.200	.531	
.0056	2113TC-3-.0056-6-*	.210	.531	
.0068	2113TC-3-.0068-6-*	.230	.531	
.0082	2113TC-3-.0082-6-*	.250	.531	
.01	2113TC-3-.01-6-*	.270	.531	
.012	2113TC-3-.012-6-*	.290	.531	
.015	2113TC-3-.015-6-*	.320	.531	
.018	2113TC-3-.018-6-*	.290	.656	
.022	2113TC-3-.022-6-*	.310	.656	
.027	2113TC-3-.027-6-*	.340	.656	
.033	2113TC-3-.033-6-*	.370	.656	
.039	2113TC-3-.039-6-*	.360	.781	
.047	2113TC-3-.047-6-*	.390	.781	
.056	2113TC-3-.056-6-*	.420	.781	
.068	2113TC-3-.068-6-*	.460	.781	
.082	2113TC-3-.082-6-*	.450	.906	
.1	2113TC-3-.1-6-*	.490	.906	
.12	2113TC-3-.12-6-*	.530	.906	
.15	2113TC-3-.15-6-*	.510	1.190	
.18	2113TC-3-.18-6-*	.550	1.190	
.22	2113TC-3-.22-6-*	.600	1.190	
.27	2113TC-3-.27-6-*	.670	1.190	
.33	2113TC-3-.33-6-*	.650	1.440	
.39	2113TC-3-.39-6-*	.700	1.440	
.47	2113TC-3-.47-6-*	.760	1.440	
.56	2113TC-3-.56-6-*	.790	1.570	
.68	2113TC-3-.68-6-*	.870	1.570	
.82	2113TC-3-.82-6-*	.910	1.690	
1.0	2113TC-3-1.0-6-*	.920	1.940	
1.25	2113TC-3-1.25-6-*	1.020	1.940	
1.5	2113TC-3-1.5-6-*	1.040	2.250	
2.0	2113TC-3-2.0-6-*	1.200	2.250	

* - Please insert appropriate tolerance code

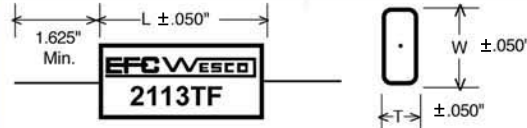


2113TF Oval Wrap & Fill

Metallized Polyphenylene Sulfide Capacitors

Lead Spec.
Tinned Copperweld
Under .190T = 24 AWG
.190 - .380T = 22AWG
Above .380T = 20 AWG

Dimensions and Ratings



Cap.	50 VDC			
μF	Part #	T	W	L
.001	2113TF-3-.001-0-*	.120	.210	.406
.0012	2113TF-3-.0012-0-*	.120	.210	.406
.0015	2113TF-3-.0015-0-*	.120	.210	.406
.0022	2113TF-3-.0022-0-*	.120	.210	.406
.0027	2113TF-3-.0027-0-*	.120	.210	.406
.0039	2113TF-3-.0039-0-*	.120	.210	.406
.0047	2113TF-3-.0047-0-*	.120	.210	.406
.0056	2113TF-3-.0056-0-*	.120	.210	.406
.0068	2113TF-3-.0068-0-*	.120	.210	.406
.0082	2113TF-3-.0082-0-*	.120	.210	.406
.01	2113TF-3-.01-0-*	.120	.210	.406
.012	2113TF-3-.012-0-*	.120	.210	.406
.015	2113TF-3-.015-0-*	.120	.210	.406
.018	2113TF-3-.018-0-*	.120	.210	.406
.022	2113TF-3-.022-0-*	.120	.210	.406
.027	2113TF-3-.027-0-*	.120	.210	.406
.033	2113TF-3-.033-0-*	.120	.210	.406
.039	2113TF-3-.039-0-*	.120	.210	.406
.047	2113TF-3-.047-0-*	.120	.210	.406
.056	2113TF-3-.056-0-*	.120	.210	.406
.068	2113TF-3-.068-0-*	.120	.210	.406
.082	2113TF-3-.082-0-*	.120	.210	.406
.1	2113TF-3-.1-0-*	.120	.210	.406
.12	2113TF-3-.12-0-*	.130	.220	.406
.15	2113TF-3-.15-0-*	.140	.240	.406
.18	2113TF-3-.18-0-*	.160	.260	.406
.22	2113TF-3-.22-0-*	.180	.280	.406
.27	2113TF-3-.27-0-*	.130	.250	.468
.33	2113TF-3-.33-0-*	.170	.270	.468
.39	2113TF-3-.39-0-*	.190	.290	.468
.47	2113TF-3-.47-0-*	.170	.270	.531
.56	2113TF-3-.56-0-*	.190	.290	.531
.68	2113TF-3-.68-0-*	.220	.310	.531
.82	2113TF-3-.82-0-*	.240	.340	.531
1.0	2113TF-3-1.0-0-*	.270	.370	.531
1.25	2113TF-3-1.25-0-*	.240	.330	.656
1.5	2113TF-3-1.5-0-*	.270	.360	.656
2.0	2113TF-3-2.0-0-*	.320	.410	.656
3.0	2113TF-3-3.0-0-*	.320	.440	.781
4.0	2113TF-3-4.0-0-*	.380	.500	.781
5.0	2113TF-3-5.0-0-*	.370	.500	.906
6.0	2113TF-3-6.0-0-*	.420	.540	.906
8.0	2113TF-3-8.0-0-0-*	.380	.550	1.190
10.0	2113TF-3-10.0-0-*	.440	.600	1.190
12.0	2113TF-3-12.0-0-*	.480	.650	1.190
15.0	2113TF-3-15.0-0-*	.470	.640	1.440
20.0	2113TF-3-20.0-0-*	.560	.730	1.440

Cap.	75 VDC			
μF	Part #	T	W	L
.001	2113TF-3-.001-.75-*	.120	.210	.406
.0012	2113TF-3-.0012-.75-*	.120	.210	.406
.0015	2113TF-3-.0015-.75-*	.120	.210	.406
.0022	2113TF-3-.0022-.75-*	.120	.210	.406
.0027	2113TF-3-.0027-.75-*	.120	.210	.406
.0039	2113TF-3-.0039-.75-*	.120	.210	.406
.0047	2113TF-3-.0047-.75-*	.120	.210	.406
.0056	2113TF-3-.0056-.75-*	.120	.210	.406
.0068	2113TF-3-.0068-.75-*	.120	.210	.406
.0082	2113TF-3-.0082-.75-*	.120	.210	.406
.01	2113TF-3-.01-.75-*	.120	.210	.406
.012	2113TF-3-.012-.75-*	.120	.210	.406
.015	2113TF-3-.015-.75-*	.120	.210	.406
.018	2113TF-3-.018-.75-*	.120	.210	.406
.022	2113TF-3-.022-.75-*	.120	.210	.406
.027	2113TF-3-.027-.75-*	.120	.210	.406
.033	2113TF-3-.033-.75-*	.120	.210	.406
.039	2113TF-3-.039-.75-*	.120	.210	.406
.047	2113TF-3-.047-.75-*	.120	.210	.406
.056	2113TF-3-.056-.75-*	.120	.220	.406
.068	2113TF-3-.068-.75-*	.140	.230	.406
.082	2113TF-3-.082-.75-*	.160	.250	.406
.1	2113TF-3-.1-.75-*	.180	.270	.406
.12	2113TF-3-.12-.75-*	.200	.290	.406
.15	2113TF-3-.15-.75-*	.170	.290	.468
.18	2113TF-3-.18-.75-*	.190	.280	.468
.22	2113TF-3-.22-.75-*	.210	.300	.468
.27	2113TF-3-.27-.75-*	.240	.330	.468
.33	2113TF-3-.33-.75-*	.270	.360	.468
.39	2113TF-3-.39-.75-*	.240	.340	.531
.47	2113TF-3-.47-.75-*	.270	.360	.531
.56	2113TF-3-.56-.75-*	.300	.390	.531
.68	2113TF-3-.68-.75-*	.330	.430	.531
.82	2113TF-3-.82-.75-*	.290	.380	.656
1.0	2113TF-3-1.0-.75-*	.320	.420	.656
1.25	2113TF-3-1.25-.75-*	.370	.460	.656
1.5	2113TF-3-1.5-.75-*	.410	.500	.656
2.0	2113TF-3-2.0-.75-*	.380	.510	.781
3.0	2113TF-3-3.0-.75-*	.480	.610	.781
4.0	2113TF-3-4.0-.75-*	.500	.620	.906
5.0	2113TF-3-5.0-.75-*	.570	.690	.906
6.0	2113TF-3-6.0-.75-*	.510	.640	1.190
8.0	2113TF-3-8.0-0-.75-*	.600	.730	1.190
10.0	2113TF-3-10.0-.75-*	.570	.740	1.440
12.0	2113TF-3-12.0-.75-*	.630	.800	1.440

* - Please insert appropriate tolerance code

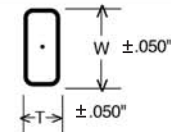
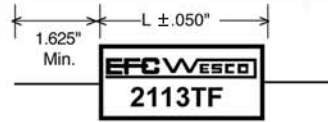


2113TF Oval Wrap & Fill

Metallized Polyphenylene Sulfide Capacitors

Lead Spec.
Tinned Copperweld
Under .190T = 24 AWG
.190 - .380T = 22AWG
Above .380T = 20 AWG

Dimensions and Ratings



Cap.	100 VDC			
	μF	Part #	T	W
.001	2113TF-3-001-1-*	.120	.210	.406
.0012	2113TF-3-0012-1-*	.120	.210	.406
.0015	2113TF-3-0015-1-*	.120	.210	.406
.0022	2113TF-3-0022-1-*	.120	.210	.406
.0027	2113TF-3-0027-1-*	.120	.210	.406
.0039	2113TF-3-0039-1-*	.120	.210	.406
.0047	2113TF-3-0047-1-*	.120	.210	.406
.0056	2113TF-3-0056-1-*	.120	.210	.406
.0068	2113TF-3-0068-1-*	.120	.210	.406
.0082	2113TF-3-0082-1-*	.120	.210	.406
.01	2113TF-3-01-1-*	.120	.210	.406
.012	2113TF-3-012-1-*	.120	.210	.406
.015	2113TF-3-015-1-*	.120	.210	.406
.018	2113TF-3-018-1-*	.120	.210	.406
.022	2113TF-3-022-1-*	.120	.210	.406
.027	2113TF-3-027-1-*	.120	.210	.406
.033	2113TF-3-033-1-*	.120	.210	.406
.039	2113TF-3-039-1-*	.120	.210	.406
.047	2113TF-3-047-1-*	.130	.230	.406
.056	2113TF-3-056-1-*	.150	.240	.406
.068	2113TF-3-068-1-*	.170	.260	.406
.082	2113TF-3-082-1-*	.140	.230	.468
.1	2113TF-3-1-1-*	.160	.250	.468
.12	2113TF-3-12-1-*	.180	.270	.468
.15	2113TF-3-15-1-*	.160	.260	.531
.18	2113TF-3-18-1-*	.180	.280	.531
.22	2113TF-3-22-1-*	.210	.300	.531
.27	2113TF-3-27-1-*	.180	.270	.656
.33	2113TF-3-33-1-*	.200	.290	.656
.39	2113TF-3-39-1-*	.220	.320	.656
.47	2113TF-3-47-1-*	.250	.340	.656
.56	2113TF-3-56-1-*	.280	.370	.656
.68	2113TF-3-68-1-*	.240	.370	.781
.82	2113TF-3-82-1-*	.270	.400	.781
1.0	2113TF-3-1.0-1-*	.310	.430	.781
1.25	2113TF-3-1.25-1-*	.350	.470	.781
1.5	2113TF-3-1.5-1-*	.340	.460	.906
2.0	2113TF-3-2.0-1-*	.400	.530	.906
3.0	2113TF-3-3.0-1-*	.390	.560	1.190
4.0	2113TF-3-4.0-1-*	.470	.630	1.190
5.0	2113TF-3-5.0-1-*	.460	.620	1.440
6.0	2113TF-3-6.0-1-*	.510	.670	1.440
8.0	2113TF-3-8.0-1-*	.600	.770	1.440
10.0	2113TF-3-10.0-1-*	.620	.820	1.570
12.0	2113TF-3-12.0-1-*	.690	.840	1.570
15.0	2113TF-3-15.0-1-*	.750	.890	1.690
20.0	2113TF-3-20.0-1-*	.800	.990	1.940

Cap.	160 VDC			
	μF	Part #	T	W
.001	2113TF-3-001-1.6-*	.120	.210	.406
.0012	2113TF-3-0012-1.6-*	.120	.210	.406
.0015	2113TF-3-0015-1.6-*	.120	.210	.406
.0022	2113TF-3-0022-1.6-*	.120	.210	.406
.0027	2113TF-3-0027-1.6-*	.120	.210	.406
.0039	2113TF-3-0039-1.6-*	.120	.210	.406
.0047	2113TF-3-0047-1.6-*	.120	.210	.406
.0056	2113TF-3-0056-1.6-*	.120	.210	.406
.0068	2113TF-3-0068-1.6-*	.120	.210	.406
.0082	2113TF-3-0082-1.6-*	.120	.210	.406
.01	2113TF-3-01-1.6-*	.120	.210	.406
.012	2113TF-3-012-1.6-*	.120	.210	.406
.015	2113TF-3-015-1.6-*	.120	.210	.406
.018	2113TF-3-018-1.6-*	.120	.210	.406
.022	2113TF-3-022-1.6-*	.130	.220	.406
.027	2113TF-3-027-1.6-*	.140	.240	.406
.033	2113TF-3-033-1.6-*	.160	.260	.406
.039	2113TF-3-039-1.6-*	.180	.270	.406
.047	2113TF-3-047-1.6-*	.120	.210	.531
.056	2113TF-3-056-1.6-*	.130	.230	.531
.068	2113TF-3-068-1.6-*	.150	.240	.531
.082	2113TF-3-082-1.6-*	.170	.260	.531
.1	2113TF-3-1-1.6-*	.190	.290	.531
.12	2113TF-3-12-1.6-*	.210	.310	.531
.15	2113TF-3-15-1.6-*	.190	.280	.656
.18	2113TF-3-18-1.6-*	.210	.300	.656
.22	2113TF-3-22-1.6-*	.230	.330	.656
.27	2113TF-3-27-1.6-*	.270	.360	.656
.33	2113TF-3-33-1.6-*	.300	.390	.656
.39	2113TF-3-39-1.6-*	.260	.380	.781
.47	2113TF-3-47-1.6-*	.290	.420	.781
.56	2113TF-3-56-1.6-*	.320	.450	.781
.68	2113TF-3-68-1.6-*	.310	.440	.906
.82	2113TF-3-82-1.6-*	.350	.480	.906
1.0	2113TF-3-1.0-1.6-*	.300	.470	1.190
1.25	2113TF-3-1.25-1.6-*	.350	.510	1.190
1.5	2113TF-3-1.5-1.6-*	.390	.550	1.190
2.0	2113TF-3-2.0-1.6-*	.460	.630	1.190
3.0	2113TF-3-3.0-1.6-*	.500	.670	1.440
4.0	2113TF-3-4.0-1.6-*	.590	.760	1.440
5.0	2113TF-3-5.0-1.6-*	.630	.800	1.570
6.0	2113TF-3-6.0-1.6-*	.700	.870	1.570
8.0	2113TF-3-8.0-0.0-1.6-*	.720	.920	1.690
10.0	2113TF-3-10.0-1.6-*	.820	1.020	1.820
12.0	2113TF-3-12.0-1.6-*	.870	1.070	1.820
15.0	2113TF-3-15.0-1.6-*	.990	1.180	1.940
20.0	2113TF-3-20.0-1.6-*	1.160	1.350	1.940

* - Please insert appropriate tolerance code

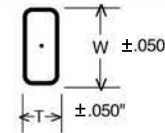
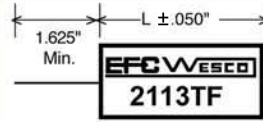


2113TF Oval Wrap & Fill

Metallized Polyphenylene Sulfide Capacitors

Lead Spec.
Tinned Copperweld
Under .190T = 24 AWG
.190 - .380T = 22AWG
Above .380T = 20 AWG

Dimensions and Ratings



Cap.	200 VDC			
μF	Part #	T	W	L
.001	2113TF-3-.001-2-*	.140	.230	.406
.0012	2113TF-3-.0012-2-*	.140	.230	.406
.0015	2113TF-3-.0015-2-*	.140	.230	.406
.0022	2113TF-3-.0022-2-*	.140	.230	.406
.0027	2113TF-3-.0027-2-*	.140	.230	.406
.0039	2113TF-3-.0039-2-*	.140	.230	.406
.0047	2113TF-3-.0047-2-*	.140	.230	.406
.0056	2113TF-3-.0056-2-*	.140	.230	.406
.0068	2113TF-3-.0068-2-*	.140	.230	.406
.0082	2113TF-3-.0082-2-*	.140	.230	.406
.01	2113TF-3-.01-2-*	.140	.230	.406
.012	2113TF-3-.012-2-*	.140	.230	.406
.015	2113TF-3-.015-2-*	.140	.230	.406
.018	2113TF-3-.018-2-*	.160	.250	.406
.022	2113TF-3-.022-2-*	.180	.270	.406
.027	2113TF-3-.027-2-*	.200	.290	.406
.033	2113TF-3-.033-2-*	.140	.230	.531
.039	2113TF-3-.039-2-*	.150	.250	.531
.047	2113TF-3-.047-2-*	.170	.260	.531
.056	2113TF-3-.056-2-*	.190	.280	.531
.068	2113TF-3-.068-2-*	.210	.300	.531
.082	2113TF-3-.082-2-*	.230	.330	.531
.1	2113TF-3-.1-2-*	.260	.350	.531
.12	2113TF-3-.12-2-*	.290	.380	.531
.15	2113TF-3-.15-2-*	.250	.350	.656
.18	2113TF-3-.18-2-*	.280	.370	.656
.22	2113TF-3-.22-2-*	.310	.410	.656
.27	2113TF-3-.27-2-*	.350	.440	.656
.33	2113TF-3-.33-2-*	.310	.440	.781
.39	2113TF-3-.39-2-*	.340	.470	.781
.47	2113TF-3-.47-2-*	.330	.460	.906
.56	2113TF-3-.56-2-*	.370	.490	.906
.68	2113TF-3-.68-2-*	.410	.540	.906
.82	2113TF-3-.82-2-*	.350	.520	1.190
1.0	2113TF-3-1.0-2-*	.400	.560	1.190
1.25	2113TF-3-1.25-2-*	.450	.620	1.190
1.5	2113TF-3-1.5-2-*	.500	.670	1.190
2.0	2113TF-3-2.0-2-*	.510	.670	1.440
3.0	2113TF-3-3.0-2-*	.640	.800	1.440
4.0	2113TF-3-4.0-2-*	.700	.870	1.570
5.0	2113TF-3-5.0-2-*	.740	.930	1.690
6.0	2113TF-3-6.0-2-*	.780	.970	1.820
8.0	2113TF-3-8.0-2-*	.910	1.110	1.920
10.0	2113TF-3-10.0-2-*	.980	1.180	1.940
12.0	2113TF-3-12.0-2-*	1.000	1.200	2.250
15.0	2113TF-3	1.120	1.330	2.250

Cap.	400 VDC			
μF	Part #	T	W	L
.001	2113TF-3-.001-4-*	.140	.230	.406
.0012	2113TF-3-.0012-4-*	.140	.230	.406
.0015	2113TF-3-.0015-4-*	.140	.230	.406
.0022	2113TF-3-.0022-4-*	.140	.230	.406
.0027	2113TF-3-.0027-4-*	.140	.230	.406
.0039	2113TF-3-.0039-4-*	.140	.230	.406
.0047	2113TF-3-.0047-4-*	.140	.230	.406
.0056	2113TF-3-.0056-4-*	.140	.240	.406
.0068	2113TF-3-.0068-4-*	.160	.250	.406
.0082	2113TF-3-.0082-4-*	.180	.270	.406
.01	2113TF-3-.01-4-*	.200	.290	.406
.012	2113TF-3-.012-4-*	.140	.230	.531
.015	2113TF-3-.015-4-*	.160	.250	.531
.018	2113TF-3-.018-4-*	.170	.270	.531
.022	2113TF-3-.022-4-*	.190	.290	.531
.027	2113TF-3-.027-4-*	.210	.310	.531
.033	2113TF-3-.033-4-*	.240	.330	.531
.039	2113TF-3-.039-4-*	.210	.300	.656
.047	2113TF-3-.047-4-*	.210	.340	.656
.056	2113TF-3-.056-4-*	.240	.360	.656
.068	2113TF-3-.068-4-*	.260	.390	.656
.082	2113TF-3-.082-4-*	.290	.420	.656
.1	2113TF-3-.1-4-*	.280	.400	.781
.12	2113TF-3-.12-4-*	.310	.430	.781
.15	2113TF-3-.15-4-*	.330	.490	.781
.18	2113TF-3-.18-4-*	.320	.480	.906
.22	2113TF-3-.22-4-*	.360	.520	.906
.27	2113TF-3-.27-4-*	.400	.570	.906
.33	2113TF-3-.33-4-*	.450	.620	.906
.39	2113TF-3-.39-4-*	.400	.570	1.190
.47	2113TF-3-.47-4-*	.450	.620	1.190
.56	2113TF-3-.56-4-*	.500	.660	1.190
.68	2113TF-3-.68-4-*	.550	.720	1.190
.82	2113TF-3-.82-4-*	.520	.710	1.440
1.0	2113TF-3-1.0-4-*	.580	.780	1.440
1.25	2113TF-3-1.25-4-*	.660	.850	1.440
1.5	2113TF-3-1.5-4-*	.680	.880	1.570
2.0	2113TF-3-2.0-4-*	.760	.960	1.690
3.0	2113TF-3-3.0-4-*	.870	1.060	1.940
4.0	2113TF-3-4.0-4-*	.910	1.210	1.940
5.0	2113TF-3-5.0-4-*	1.060	1.250	2.250

* - Please insert appropriate tolerance code

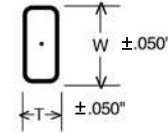
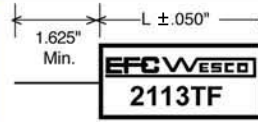


2113TF
Oval Wrap & Fill

**Metallized
Polyphenylene
Sulfide Capacitors**

Lead Spec.
Tinned Copperweld
Under .190T = 24 AWG
.190 - .380T = 22AWG
Above .380T = 20 AWG

**Dimensions
and Ratings**



Cap.	600 VDC			
μ F	Part #	T	W	L
.001	2113TF-3-.001-6-*	.140	.230	.531
.0012	2113TF-3-.0012-6-*	.140	.230	.531
.0015	2113TF-3-.0015-6-*	.140	.230	.531
.0022	2113TF-3-.0022-6-*	.140	.230	.531
.0027	2113TF-3-.0027-6-*	.140	.230	.531
.0039	2113TF-3-.0039-6-*	.140	.230	.531
.0047	2113TF-3-.0047-6-*	.140	.230	.531
.0056	2113TF-3-.0056-6-*	.150	.250	.531
.0068	2113TF-3-.0068-6-*	.170	.260	.531
.0082	2113TF-3-.0082-6-*	.190	.280	.531
.01	2113TF-3-.01-6-*	.210	.300	.531
.012	2113TF-3-.012-6-*	.230	.330	.531
.015	2113TF-3-.015-6-*	.260	.360	.531
.018	2113TF-3-.018-6-*	.230	.320	.656
.022	2113TF-3-.022-6-*	.250	.350	.656
.027	2113TF-3-.027-6-*	.280	.380	.656
.033	2113TF-3-.033-6-*	.310	.410	.656
.039	2113TF-3-.039-6-*	.280	.400	.781
.047	2113TF-3-.047-6-*	.310	.430	.781
.056	2113TF-3-.056-6-*	.340	.460	.781
.068	2113TF-3-.068-6-*	.380	.500	.781
.082	2113TF-3-.082-6-*	.370	.490	.906
.1	2113TF-3-.1-6-*	.410	.530	.906
.12	2113TF-3-.12-6-*	.450	.580	.906
.15	2113TF-3-.15-6-*	.400	.570	1.190
.18	2113TF-3-.18-6-*	.450	.610	1.190
.22	2113TF-3-.22-6-*	.500	.670	1.190
.27	2113TF-3-.27-6-*	.560	.730	1.190
.33	2113TF-3-.33-6-*	.540	.710	1.440
.39	2113TF-3-.39-6-*	.590	.760	1.440
.47	2113TF-3-.47-6-*	.660	.830	1.440
.56	2113TF-3-.56-6-*	.680	.850	1.570
.68	2113TF-3-.68-6-*	.760	.930	1.570
.82	2113TF-3-.82-6-*	.780	.980	1.690
1.0	2113TF-3-1.0-6-*	.790	.990	1.940
1.25	2113TF-3-1.25-6-*	.900	1.090	1.940
1.5	2113TF-3-1.5-6-*	.920	1.110	2.250
2.0	2113TF-3-2.0-6-*	1.070	1.270	2.250

* - Please insert appropriate tolerance code



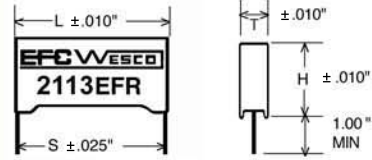
Please consult factory for special requirements, including non-standard values and sizes

2113EFR
Rectangular Plastic Case
(Radial Leads)

**Metallized
Polyphenylene
Sulfide Capacitors**

**Lead Specs -
Tinned Copperweld**
B through E cases: 22 AWG
F through Q cases: 20 AWG

**Dimensions
and Ratings**



63 VDC / 40 VAC						100 VDC / 63 VAC					
Cap.	Part #	T in. (mm)	L in. (mm)	H in. (mm)	S in. (mm)	Cap.	Part #	T in. (mm)	L in. (mm)	H in. (mm)	S in. (mm)
.001	2113EFR-B-001-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.001	2113EFR-B-001-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0012	2113EFR-B-0012-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0012	2113EFR-B-0012-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0015	2113EFR-B-0015-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0015	2113EFR-B-0015-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0022	2113EFR-B-0022-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0022	2113EFR-B-0022-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0027	2113EFR-B-0027-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0027	2113EFR-B-0027-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0039	2113EFR-B-0039-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0039	2113EFR-B-0039-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0047	2113EFR-B-0047-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0047	2113EFR-B-0047-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0056	2113EFR-B-0056-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0056	2113EFR-B-0056-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0068	2113EFR-B-0068-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0068	2113EFR-B-0068-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0082	2113EFR-B-0082-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0082	2113EFR-B-0082-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.01	2113EFR-B-01-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.01	2113EFR-B-01-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.012	2113EFR-B-012-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.012	2113EFR-B-012-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.015	2113EFR-B-015-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.015	2113EFR-B-015-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.018	2113EFR-B-018-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.018	2113EFR-B-018-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.022	2113EFR-B-022-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.022	2113EFR-B-022-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.027	2113EFR-B-027-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.027	2113EFR-B-027-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.033	2113EFR-B-033-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.033	2113EFR-B-033-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.039	2113EFR-B-039-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.039	2113EFR-B-039-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.047	2113EFR-B-047-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.047	2113EFR-B-047-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.056	2113EFR-B-056-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.056	2113EFR-C-056-1-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.068	2113EFR-B-068-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.068	2113EFR-C-068-1-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.082	2113EFR-B-082-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.082	2113EFR-C-082-1-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.1	2113EFR-C-1-63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.1	2113EFR-C-1-1-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.12	2113EFR-C-12-63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.12	2113EFR-D-12-1-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.15	2113EFR-C-15-63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.15	2113EFR-D-15-1-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.18	2113EFR-C-18-63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.18	2113EFR-E-18-1-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.22	2113EFR-D-22-63-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)	.22	2113EFR-E-22-1-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.27	2113EFR-D-27-63-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)	.27	2113EFR-F-27-1-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.33	2113EFR-D-33-63-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)	.33	2113EFR-F-33-1-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.39	2113EFR-D-39-63-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)	.39	2113EFR-G-39-1-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.47	2113EFR-E-47-63-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)	.47	2113EFR-G-47-1-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.56	2113EFR-F-56-63-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)	.56	2113EFR-H-56-1-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.68	2113EFR-F-68-63-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)	.68	2113EFR-H-68-1-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.82	2113EFR-G-82-63-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)	.82	2113EFR-H-82-1-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
1.0	2113EFR-G-1.0-63-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)	1.0	2113EFR-K-1.0-1-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
1.20	2113EFR-H-1.2-63-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)	1.20	2113EFR-M-1.0-1-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
1.50	2113EFR-J-1.5-63-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)	1.50	2113EFR-K-1.25-1-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
1.50	2113EFR-L-1.5-63-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)	1.50	2113EFR-M-1.25-1-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
2.20	2113EFR-J-2.2-63-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)	2.20	2113EFR-K-1.5-1-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
2.20	2113EFR-L-2.2-63-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)	2.20	2113EFR-M-1.5-1-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
3.30	2113EFR-K-3.3-63-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)	3.30	2113EFR-N-2.2-1-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
3.30	2113EFR-M-3.3-63-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)	3.30	2113EFR-P-3.3-1-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
4.70	2113EFR-N-4.7-63-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)	4.70	2113EFR-P-4.7-1-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
5.60	2113EFR-P-5.6-63-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)	5.60	2113EFR-Q-5.6-1-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)

* - Please insert appropriate tolerance code



Please consult factory for special requirements, including non-standard values and sizes

2113EFR

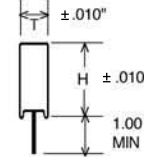
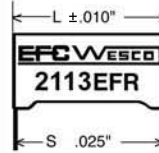
Rectangular Plastic Case
(Radial Leads)

Metalized Polyphenylene Sulfide Capacitors

Lead Specs -

Tinned Copperweld
B through E cases: 22 AWG
F through Q cases: 20 AWG

Dimensions and Ratings



160 VDC / 100 VAC						250 VDC / 160 VAC					
Cap. μ F	Part #	T in. (mm)	L in. (mm)	H in. (mm)	S in. (mm)	Cap. μ F	Part #	T in. (mm)	L in. (mm)	H in. (mm)	S in. (mm)
.001	2113EFR-B-.001-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.001	2113EFR-B-.001-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0012	2113EFR-B-.0012-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0012	2113EFR-B-.0012-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0015	2113EFR-B-.0015-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0015	2113EFR-B-.0015-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0022	2113EFR-B-.0022-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0022	2113EFR-B-.0022-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0027	2113EFR-B-.0027-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0027	2113EFR-B-.0027-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0039	2113EFR-B-.0039-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0039	2113EFR-B-.0039-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0047	2113EFR-B-.0047-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0047	2113EFR-B-.0047-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0056	2113EFR-B-.0056-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0056	2113EFR-B-.0056-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0068	2113EFR-B-.0068-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0068	2113EFR-B-.0068-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0082	2113EFR-B-.0082-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0082	2113EFR-B-.0082-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.01	2113EFR-B-.01-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.01	2113EFR-B-.01-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.012	2113EFR-B-.012-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.012	2113EFR-B-.012-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.015	2113EFR-B-.015-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.015	2113EFR-B-.015-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.018	2113EFR-B-.018-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.018	2113EFR-C-.018-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.022	2113EFR-B-.022-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.022	2113EFR-C-.022-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.027	2113EFR-B-.027-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.027	2113EFR-C-.027-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.033	2113EFR-B-.033-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.033	2113EFR-C-.033-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.039	2113EFR-B-.039-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.039	2113EFR-C-.039-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.047	2113EFR-B-.047-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.047	2113EFR-C-.047-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.056	2113EFR-C-.056-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.056	2113EFR-D-.056-2.5-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.068	2113EFR-C-.068-1.6-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)	.068	2113EFR-D-.068-2.5-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.082	2113EFR-C-.082-1.6-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)	.082	2113EFR-D-.082-2.5-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.1	2113EFR-C-.1-1.6-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)	.1	2113EFR-D-.1-2.5-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.12	2113EFR-D-.12-1.6-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)	.12	2113EFR-D-.12-2.5-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.15	2113EFR-D-.15-1.6-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)	.15	2113EFR-D-.15-2.5-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.18	2113EFR-E-.18-1.6-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)	.18	2113EFR-G-.18-2.5-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.22	2113EFR-E-.22-1.6-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)	.22	2113EFR-G-.22-2.5-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.27	2113EFR-F-.27-1.6-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)	.27	2113EFR-H-.27-2.5-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.33	2113EFR-F-.33-1.6-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)	.33	2113EFR-H-.33-2.5-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.39	2113EFR-G-.39-1.6-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)	.39	2113EFR-K-.39-2.5-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.47	2113EFR-G-.47-1.6-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)	.47	2113EFR-M-.39-2.5-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.56	2113EFR-H-.56-1.6-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)	.47	2113EFR-K-.47-2.5-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.68	2113EFR-H-.68-1.6-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)	.47	2113EFR-M-.47-2.5-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.82	2113EFR-H-.82-1.6-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)	.56	2113EFR-O-.56-2.5-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.82	2113EFR-K-.82-1.6-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)	.68	2113EFR-O-.68-2.5-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
1.0	2113EFR-M-1.0-1.6-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)	.82	2113EFR-O-.82-2.5-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
1.0	2113EFR-K-1.0-1.6-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)	1.0	2113EFR-O-1.0-2.5-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
1.25	2113EFR-M-1.25-1.6-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)	1.25	2113EFR-P-1.25-2.5-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
1.25	2113EFR-K-1.25-1.6-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)	1.50	2113EFR-P-1.5-2.5-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
1.50	2113EFR-M-1.5-1.6-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)	2.20	2113EFR-Q-2.2-2.5-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)
2.20	2113EFR-N-2.2-1.6-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)						
3.30	2113EFR-P-3.3-1.6-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)						

* - Please insert appropriate tolerance code



Please consult factory for special requirements, including non-standard values and sizes

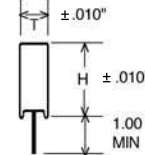
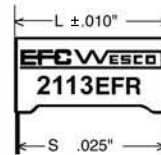
2113EFR

Rectangular Plastic Case
(Radial Leads)

Metallized Polyphenylene Sulfide Capacitors

Lead Specs -
Tinned Copperweld
B through E cases: 22 AWG
F through Q cases: 20 AWG

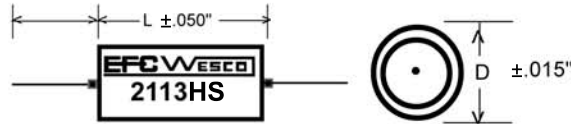
Dimensions and Ratings



Cap.	400 VDC / 220 VAC				
µF	Part #	T in. (mm)	L in. (mm)	H in. (mm)	S in. (mm)
.001	2113EFR-B-.001-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0012	2113EFR-B-.0012-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0015	2113EFR-B-.0015-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0022	2113EFR-B-.0022-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0027	2113EFR-B-.0027-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0039	2113EFR-B-.0039-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0047	2113EFR-B-.0047-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0056	2113EFR-B-.0056-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0068	2113EFR-B-.0068-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0082	2113EFR-B-.0082-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.01	2113EFR-B-.01-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.012	2113EFR-B-.012-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.015	2113EFR-C-.015-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.018	2113EFR-C-.018-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.022	2113EFR-C-.022-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.027	2113EFR-C-.027-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.033	2113EFR-D-.033-4-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.039	2113EFR-D-.039-4-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.047	2113EFR-D-.047-4-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.056	2113EFR-E-.056-4-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.068	2113EFR-E-.068-4-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.082	2113EFR-F-.082-4-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.1	2113EFR-G-.1-4-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.12	2113EFR-H-.12-4-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.15	2113EFR-H-.15-4-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.18	2113EFR-J-.18-4-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.18	2113EFR-L-.18-4-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.22	2113EFR-K-.22-4-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.22	2113EFR-M-.22-4-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.27	2113EFR-K-.27-4-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.27	2113EFR-M-.27-4-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.33	2113EFR-N-.33-4-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.39	2113EFR-N-.39-4-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.47	2113EFR-O-.47-4-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.56	2113EFR-O-.56-4-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.68	2113EFR-O-.68-4-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)

Cap.	630 VDC / 250 VAC				
µF	Part #	T in. (mm)	L in. (mm)	H in. (mm)	S in. (mm)
.001	2113EFR-C-.001-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0012	2113EFR-C-.0012-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0015	2113EFR-C-.0015-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0022	2113EFR-C-.0022-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0027	2113EFR-C-.0027-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0039	2113EFR-C-.0039-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0047	2113EFR-C-.0047-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0056	2113EFR-C-.0056-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0068	2113EFR-C-.0068-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0082	2113EFR-C-.0082-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.01	2113EFR-D-.01-6.3-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.012	2113EFR-D-.012-6.3-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.015	2113EFR-E-.015-6.3-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.018	2113EFR-E-.018-6.3-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.022	2113EFR-F-.022-6.3-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.027	2113EFR-G-.027-6.3-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.033	2113EFR-G-.033-6.3-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.039	2113EFR-H-.039-6.3-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.047	2113EFR-H-.047-6.3-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.056	2113EFR-J-.056-6.3-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.056	2113EFR-L-.056-6.3-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.068	2113EFR-J-.068-6.3-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.068	2113EFR-L-.068-6.3-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.082	2113EFR-K-.082-6.3-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.082	2113EFR-M-.082-6.3-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.1	2113EFR-K-.1-6.3-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.1	2113EFR-M-.1-6.3-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.12	2113EFR-N-.12-6.3-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.15	2113EFR-O-.15-6.3-*	.394 (10.0)	.394 (10.0)	.394 (10.0)	.886 (22.5)
.18	2113EFR-O-.18-6.3-*	.394 (10.0)	.394 (10.0)	.394 (10.0)	.886 (22.5)
.22	2113EFR-P-.22-6.3-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.27	2113EFR-O-.27-6.3-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)

* - Please insert appropriate tolerance code

**2113HS
Hermetically Sealed****Metallized
Polyphenylene
Sulfide Capacitors****Lead Spec.**
Tinned Copper
#24 AWG (.020) - .195" dia
#22 AWG (.025) - .235 & .312
#20 AWG (.031) - .400" dia & up**Dielectric Withstanding Voltage:**

200% of rated voltage applied through a minimum limiting resistance of 100 Ohms/volt. Duration of voltage stress shall be 15 seconds minimum and 1 minute maximum at 25°C.

Temperature Range:

-55°C to +125°C with full rated voltage applied.

Insulation Resistance:

At 25°C after 2 minutes of electrification at rated voltage or 500 VDC, whichever is less, the minimum product of Insulation Resistance and Capacitance shall be 50,000 megohms-microfarads, but need not exceed 50,000 megohms.

Dissipation Factor:

Shall not exceed 0.3% when measured at 25°C and 1000Hz, ±20 Hz.

Capacitance and Tolerance:

Shall be measured within the tolerance limits specified. Measurements will be made at 25°C and 1000 Hz, ±20 Hz.

Life Test:

Shall withstand 140% of rated voltage at 85°C for 250 hours. One failure in twelve shall be permitted. Failure is described as catastrophic (open or short).

Capacitance Stability (Drift):

Less than 0.3% when measured in the following manner: three capacitance readings at 25°C, each made prior to and after temperature cycling from room to 85°C, and room to -55°C. The mathematical difference between the two extremes, divided by intermediate value, and then multiplied by 100, yields the stability expressed in percent.

Humidity Resistance:

Capable of meeting requirements of MIL-PRF-19978L and MIL-PRF-39022J when tested in accordance with Method 106 of MIL-STD-202.

Lead Pull and Bend Test:

Steady pull of 5 pounds axially to leads for one minute. Bend test shall consist of one bend from the point of egress, first 90° in one direction, back to the original axial position, and then 90° in the opposite direction with no evidence of breakage.

Features:

Hermetically sealed. Low dissipation factor. Extended foil design. Excellent stability. Quality control procedures per ISO 9001-2015.

Applications:

Data processing equipment, aircraft and missile systems, industrial instrumentation, navigation and distance measuring equipment, communications equipment.



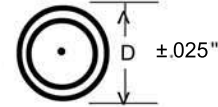
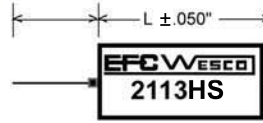
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2113HS
Hermetically Sealed

**Metallized
Polyphenylene
Sulfide Capacitors**

Lead Spec.
Tinned Copper
#24 AWG (.020) - .195" dia
#22 AWG (.025) - .235 & .312
#20 AWG (.031) - .400" dia & up

**Dimensions
and Ratings**



Cap.		50 VDC	
μF	Part #	D	L
.001	2113HS-3-001-0-*	.175	.562
.0012	2113HS-3-0012-0-*	.175	.562
.0015	2113HS-3-0015-0-*	.175	.562
.0022	2113HS-3-0022-0-*	.175	.562
.0027	2113HS-3-0027-0-*	.175	.562
.0039	2113HS-3-0039-0-*	.175	.562
.0047	2113HS-3-0047-0-*	.175	.562
.0056	2113HS-3-0056-0-*	.175	.562
.0068	2113HS-3-0068-0-*	.175	.562
.0082	2113HS-3-0082-0-*	.175	.562
.01	2113HS-3-01-0-*	.195	.562
.012	2113HS-3-012-0-*	.195	.562
.015	2113HS-3-015-0-*	.195	.562
.018	2113HS-3-018-0-*	.195	.562
.022	2113HS-3-022-0-*	.195	.562
.027	2113HS-3-027-0-*	.195	.562
.033	2113HS-3-033-0-*	.195	.562
.039	2113HS-3-039-0-*	.195	.562
.047	2113HS-3-047-0-*	.195	.562
.056	2113HS-3-056-0-*	.195	.562
.068	2113HS-3-068-0-*	.195	.562
.082	2113HS-3-082-0-*	.195	.562
.1	2113HS-3-1-0-*	.195	.562
.12	2113HS-3-12-0-*	.235	.562
.15	2113HS-3-15-0-*	.312	.562
.18	2113HS-3-18-0-*	.235	.687
.22	2113HS-3-22-0-*	.235	.687
.27	2113HS-3-27-0-*	.235	.687
.33	2113HS-3-33-0-*	.312	.687
.39	2113HS-3-39-0-*	.312	.687
.47	2113HS-3-47-0-*	.312	.812
.56	2113HS-3-56-0-*	.312	.812
.68	2113HS-3-68-0-*	.312	.812
.82	2113HS-3-82-0-*	.400	.812
1.0	2113HS-3-1.0-0-*	.400	.812
1.25	2113HS-3-1.25-0-*	.400	.812
1.5	2113HS-3-1.5-0-*	.400	.937
2.0	2113HS-3-2.0-0-*	.400	.937
3.0	2113HS-3-3.0-0-*	.400	.937
4.0	2113HS-3-4.0-0-*	.500	1.060
5.0	2113HS-3-5.0-0-*	.562	1.060
6.0	2113HS-3-6.0-0-*	.562	1.060
8.0	2113HS-3-8.0-0-*	.670	1.312
10.0	2113HS-3-10.0-0-*	.750	1.312
12.0	2113HS-3-12.0-0-*	.750	1.562
15.0	2113HS-3-15.0-0-*	.750	1.562
20.0	2113HS-3-20.0-0-*	.812	1.562

Cap.		100 VDC	
μF	Part #	D	L
.001	2113HS-3-001-1-*	.175	.562
.0012	2113HS-3-0012-1-*	.175	.562
.0015	2113HS-3-0015-1-*	.175	.562
.0022	2113HS-3-0022-1-*	.175	.562
.0027	2113HS-3-0027-1-*	.175	.562
.0039	2113HS-3-0039-1-*	.175	.562
.0047	2113HS-3-0047-1-*	.195	.562
.0056	2113HS-3-0056-1-*	.195	.562
.0068	2113HS-3-0068-1-*	.195	.562
.0082	2113HS-3-0082-1-*	.195	.562
.01	2113HS-3-01-1-*	.195	.562
.012	2113HS-3-012-1-*	.235	.562
.015	2113HS-3-015-1-*	.235	.562
.018	2113HS-3-018-1-*	.235	.562
.022	2113HS-3-022-1-*	.235	.562
.027	2113HS-3-027-1-*	.235	.562
.033	2113HS-3-033-1-*	.235	.562
.039	2113HS-3-039-1-*	.235	.562
.047	2113HS-3-047-1-*	.312	.562
.056	2113HS-3-056-1-*	.312	.562
.068	2113HS-3-068-1-*	.235	.687
.082	2113HS-3-082-1-*	.235	.687
.1	2113HS-3-1-1-*	.312	.687
.12	2113HS-3-12-1-*	.312	.687
.15	2113HS-3-15-1-*	.312	.687
.18	2113HS-3-18-1-*	.312	.812
.22	2113HS-3-22-1-*	.312	.812
.27	2113HS-3-27-1-*	.312	.812
.33	2113HS-3-33-1-*	.400	.812
.39	2113HS-3-39-1-*	.400	.812
.47	2113HS-3-47-1-*	.400	.937
.56	2113HS-3-56-1-*	.400	.937
.68	2113HS-3-68-1-*	.500	.937
.82	2113HS-3-82-1-*	.500	.937
1.0	2113HS-3-1.0-1-*	.500	.937
1.25	2113HS-3-1.25-1-*	.500	1.062
1.5	2113HS-3-1.5-1-*	.500	1.062
2.0	2113HS-3-2.0-1-*	.562	1.312
3.0	2113HS-3-3.0-1-*	.670	1.312
4.0	2113HS-3-4.0-1-*	.670	1.562
5.0	2113HS-3-5.0-1-*	.670	1.940
6.0	2113HS-3-6.0-1-*	1.000	2.168
8.0	2113HS-3-8.0-1-*	1.000	2.168

Cap.		200 VDC	
μF	Part #	D	L
.001	2113HS-3-001-2-*	.235	.562
.0012	2113HS-3-0012-2-*	.235	.562
.0015	2113HS-3-0015-2-*	.235	.562
.0022	2113HS-3-0022-2-*	.235	.562
.0027	2113HS-3-0027-2-*	.235	.562
.0039	2113HS-3-0039-2-*	.235	.562
.0047	2113HS-3-0047-2-*	.235	.562
.0056	2113HS-3-0056-2-*	.235	.562
.0068	2113HS-3-0068-2-*	.235	.562
.0082	2113HS-3-0082-2-*	.235	.562
.01	2113HS-3-01-2-*	.235	.562
.012	2113HS-3-012-2-*	.235	.562
.015	2113HS-3-015-2-*	.312	.562
.018	2113HS-3-018-2-*	.312	.562
.022	2113HS-3-022-2-*	.312	.562
.027	2113HS-3-027-2-*	.235	.687
.033	2113HS-3-033-2-*	.312	.687
.039	2113HS-3-039-2-*	.312	.687
.047	2113HS-3-047-2-*	.312	.687
.056	2113HS-3-056-2-*	.312	.687
.068	2113HS-3-068-2-*	.312	.687
.082	2113HS-3-082-2-*	.312	.812
.1	2113HS-3-1-2-*	.312	.812
.12	2113HS-3-12-2-*	.312	.812
.15	2113HS-3-15-2-*	.400	.812
.18	2113HS-3-18-2-*	.400	.812
.22	2113HS-3-22-2-*	.400	.937
.27	2113HS-3-27-2-*	.400	.937
.33	2113HS-3-33-2-*	.400	.937
.39	2113HS-3-39-2-*	.500	.937
.47	2113HS-3-47-2-*	.500	.906
.56	2113HS-3-56-2-*	.500	1.062
.68	2113HS-3-68-2-*	.500	1.062
.82	2113HS-3-82-2-*	.500	1.062
1.0	2113HS-3-1.0-2-*	.562	1.062
1.25	2113HS-3-1.25-2-*	.562	1.312
1.5	2113HS-3-1.5-2-*	.562	1.312
2.0	2113HS-3-2.0-2-*	.670	1.312
3.0	2113HS-3-3.0-2-*	.670	1.312
4.0	2113HS-3-4.0-2-*	.750	1.562
5.0	2113HS-3-5.0-2-*	1.000	1.562
6.0	2113HS-3-6.0-2-*	1.000	1.964
8.0	2113HS-3-8.0-2-*	1.000	2.187
10.0	2113HS-3-10.0-2-*	1.000	2.187

* - Please insert appropriate tolerance code -- All 2113HS sizes include insulating sleeve.



Series HV1313TC Metallized Polyester

Features: Flame retardant to UL94, small size, self healing, long life availability, limited AC applications.

Construction: Tubular with axial leads, polyester tape wrap, epoxy end fill, tinned solid copper clad wire leads, dry construction.

Applications: High voltage DC power supplies.

Packaging: Axial wrap and fill (TC).

Specifications

1) Temperature Range

-55°C to 85°C at rated voltage.

2) Capacitance Range

0.001 μ F to 0.1 μ F

3) Capacitance Tolerances

5%, 10% or 20%.

4) Dielectric Strength

140% rated for 10 seconds minimum.

5) Voltage Ratings

2KVDC to 15KVDC. Higher ratings available with custom designs.

6) Dissipation Factor

Shall be 1% max. when measured at 1KHz and 25°C.

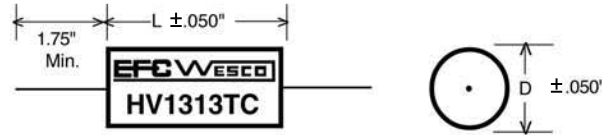


Please consult factory for special requirements, including non-standard values and sizes

HV1313TC Tubular Wrap & Fill

High Voltage Metallized Polyester Capacitors

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG



Dimensions and Ratings

2000 VDC				3000 VDC				4000 VDC			
Cap.	Part #	D	L	Cap.	Part #	D	L	Cap.	Part #	D	L
.001	HV1313TC-3-.001-2K-*	.234	1.25	.001	HV1313TC-3-.001-3K-*	.250	1.25	.001	HV1313TC-3-.001-4K-*	.250	1.25
.0012	HV1313TC-3-.0012-2K-*	.234	1.25	.0012	HV1313TC-3-.0012-3K-*	.250	1.25	.0012	HV1313TC-3-.0012-4K-*	.250	1.25
.0015	HV1313TC-3-.0015-2K-*	.234	1.25	.0015	HV1313TC-3-.0015-3K-*	.250	1.25	.0015	HV1313TC-3-.0015-4K-*	.250	1.25
.0018	HV1313TC-3-.0018-2K-*	.234	1.25	.0018	HV1313TC-3-.0018-3K-*	.250	1.25	.0018	HV1313TC-3-.0018-4K-*	.250	1.25
.0022	HV1313TC-3-.0022-2K-*	.234	1.25	.0022	HV1313TC-3-.0022-3K-*	.250	1.25	.0022	HV1313TC-3-.0022-4K-*	.250	1.25
.0027	HV1313TC-3-.0027-2K-*	.234	1.25	.0027	HV1313TC-3-.0027-3K-*	.250	1.25	.0027	HV1313TC-3-.0027-4K-*	.250	1.25
.0033	HV1313TC-3-.0033-2K-*	.234	1.25	.0033	HV1313TC-3-.0033-3K-*	.250	1.25	.0033	HV1313TC-3-.0033-4K-*	.265	1.25
.0039	HV1313TC-3-.0039-2K-*	.234	1.25	.0039	HV1313TC-3-.0039-3K-*	.250	1.25	.0039	HV1313TC-3-.0039-4K-*	.281	1.25
.0047	HV1313TC-3-.0047-2K-*	.234	1.25	.0047	HV1313TC-3-.0047-3K-*	.250	1.25	.0047	HV1313TC-3-.0047-4K-*	.312	1.25
.0056	HV1313TC-3-.0056-2K-*	.234	1.25	.0056	HV1313TC-3-.0056-3K-*	.250	1.25	.0056	HV1313TC-3-.0056-4K-*	.328	1.25
.0068	HV1313TC-3-.0068-2K-*	.234	1.25	.0068	HV1313TC-3-.0068-3K-*	.250	1.25	.0068	HV1313TC-3-.0068-4K-*	.358	1.25
.0082	HV1313TC-3-.0082-2K-*	.234	1.25	.0082	HV1313TC-3-.0082-3K-*	.265	1.25	.0082	HV1313TC-3-.0082-4K-*	.375	1.25
.01	HV1313TC-3-.01-2K-*	.234	1.25	.01	HV1313TC-3-.01-3K-*	.286	1.25	.01	HV1313TC-3-.01-4K-*	.408	1.25
.012	HV1313TC-3-.012-2K-*	.234	1.25	.012	HV1313TC-3-.012-3K-*	.317	1.25	.012	HV1313TC-3-.012-4K-*	.445	1.25
.015	HV1313TC-3-.015-2K-*	.250	1.25	.015	HV1313TC-3-.015-3K-*	.343	1.25	.015	HV1313TC-3-.015-4K-*	.375	1.75
.018	HV1313TC-3-.018-2K-*	.265	1.25	.018	HV1313TC-3-.018-3K-*	.375	1.25	.018	HV1313TC-3-.018-4K-*	.406	1.75
.022	HV1313TC-3-.022-2K-*	.296	1.25	.022	HV1313TC-3-.022-3K-*	.406	1.25	.022	HV1313TC-3-.022-4K-*	.428	1.75
.027	HV1313TC-3-.027-2K-*	.312	1.25	.027	HV1313TC-3-.027-3K-*	.359	1.75	.027	HV1313TC-3-.027-4K-*	.484	1.75
.033	HV1313TC-3-.033-2K-*	.343	1.25	.033	HV1313TC-3-.033-3K-*	.375	1.75	.033	HV1313TC-3-.033-4K-*	.531	1.75
.039	HV1313TC-3-.039-2K-*	.375	1.25	.039	HV1313TC-3-.039-3K-*	.437	1.75	.039	HV1313TC-3-.039-4K-*	.562	1.75
.047	HV1313TC-3-.047-2K-*	.359	1.50	.047	HV1313TC-3-.047-3K-*	.453	1.75	.047	HV1313TC-3-.047-4K-*	.515	2.25
.056	HV1313TC-3-.056-2K-*	.375	1.50	.056	HV1313TC-3-.056-3K-*	.468	1.75	.056	HV1313TC-3-.056-4K-*	.562	2.25
.068	HV1313TC-3-.068-2K-*	.406	1.50	.068	HV1313TC-3-.068-3K-*	.453	2.25	.068	HV1313TC-3-.068-4K-*	.608	2.25
.082	HV1313TC-3-.082-2K-*	.453	1.50	.082	HV1313TC-3-.082-3K-*	.484	2.25	.082	HV1313TC-3-.082-4K-*	.671	2.25
.1	HV1313TC-3-.1-2K-*	.500	1.50	.1	HV1313TC-3-.1-3K-*	.531	2.25	.1	HV1313TC-3-.1-4K-*	.734	2.25

* - Please insert appropriate tolerance code

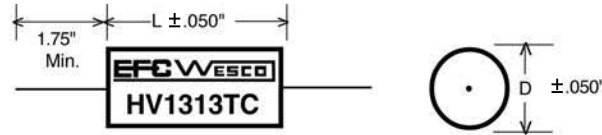


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HV1313TC Tubular Wrap & Fill

High Voltage Metallized Polyester Capacitors

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG



Dimensions and Ratings

5000 VDC				6000 VDC				8000 VDC			
Cap.	Part #	D	L	Cap.	Part #	D	L	Cap.	Part #	D	L
.001	HV1313TC-3-.001-5K-*	.250	1.312	.001	HV1313TC-3-.001-6K-*	.250	1.312	.001	HV1313TC-3-.001-8K-*	.250	1.812
.0012	HV1313TC-3-.0012-5K-*	.250	1.312	.0012	HV1313TC-3-.0012-6K-*	.250	1.312	.0012	HV1313TC-3-.0012-8K-*	.265	1.812
.0015	HV1313TC-3-.0015-5K-*	.250	1.312	.0015	HV1313TC-3-.0015-6K-*	.265	1.312	.0015	HV1313TC-3-.0015-8K-*	.281	1.812
.0018	HV1313TC-3-.0018-5K-*	.250	1.312	.0018	HV1313TC-3-.0018-6K-*	.296	1.312	.0018	HV1313TC-3-.0018-8K-*	.296	1.812
.0022	HV1313TC-3-.0022-5K-*	.250	1.312	.0022	HV1313TC-3-.0022-6K-*	.312	1.312	.0022	HV1313TC-3-.0022-8K-*	.328	1.812
.0027	HV1313TC-3-.0027-5K-*	.282	1.312	.0027	HV1313TC-3-.0027-6K-*	.343	1.312	.0027	HV1313TC-3-.0027-8K-*	.375	1.812
.0033	HV1313TC-3-.0033-5K-*	.296	1.312	.0033	HV1313TC-3-.0033-6K-*	.375	1.312	.0033	HV1313TC-3-.0033-8K-*	.390	1.812
.0039	HV1313TC-3-.0039-5K-*	.312	1.312	.0039	HV1313TC-3-.0039-6K-*	.406	1.312	.0039	HV1313TC-3-.0039-8K-*	.437	1.812
.0047	HV1313TC-3-.0047-5K-*	.343	1.312	.0047	HV1313TC-3-.0047-6K-*	.343	1.687	.0047	HV1313TC-3-.0047-8K-*	.468	1.812
.0056	HV1313TC-3-.0056-5K-*	.375	1.312	.0056	HV1313TC-3-.0056-6K-*	.375	1.687	.0056	HV1313TC-3-.0056-8K-*	.500	1.812
.0068	HV1313TC-3-.0068-5K-*	.406	1.312	.0068	HV1313TC-3-.0068-6K-*	.406	1.687	.0068	HV1313TC-3-.0068-8K-*	.546	1.812
.0082	HV1313TC-3-.0082-5K-*	.343	1.687	.0082	HV1313TC-3-.0082-6K-*	.437	1.687	.0082	HV1313TC-3-.0082-8K-*	.484	2.312
.01	HV1313TC-3-.01-5K-*	.375	1.687	.01	HV1313TC-3-.01-6K-*	.484	1.687	.01	HV1313TC-3-.01-8K-*	.531	2.312
.012	HV1313TC-3-.012-5K-*	.406	1.687	.012	HV1313TC-3-.012-6K-*	.531	1.687	.012	HV1313TC-3-.012-8K-*	.562	2.312
.015	HV1313TC-3-.015-5K-*	.437	1.687	.015	HV1313TC-3-.015-6K-*	.578	1.687	.015	HV1313TC-3-.015-8K-*	.625	2.312
.018	HV1313TC-3-.018-5K-*	.500	1.687	.018	HV1313TC-3-.018-6K-*	.531	2.062	.018	HV1313TC-3-.018-8K-*	.687	2.312
.022	HV1313TC-3-.022-5K-*	.531	1.687	.022	HV1313TC-3-.022-6K-*	.578	2.062	.022	HV1313TC-3-.022-8K-*	.750	2.312
.027	HV1313TC-3-.027-5K-*	.578	1.687	.027	HV1313TC-3-.027-6K-*	.640	2.062	.027	HV1313TC-3-.027-8K-*	.875	2.312
.033	HV1313TC-3-.033-5K-*	.531	2.062	.033	HV1313TC-3-.033-6K-*	.703	2.062	.033	HV1313TC-3-.033-8K-*	.906	2.312
.039	HV1313TC-3-.039-5K-*	.593	2.062	.039	HV1313TC-3-.039-6K-*	.796	2.062	.039	HV1313TC-3-.039-8K-*	.843	2.812
.047	HV1313TC-3-.047-5K-*	.625	2.062	.047	HV1313TC-3-.047-6K-*	.828	2.062	.047	HV1313TC-3-.047-8K-*	.921	2.812
.056	HV1313TC-3-.056-5K-*	.687	2.062	.056	HV1313TC-3-.056-6K-*	.906	2.062	.056	HV1313TC-3-.056-8K-*	1.000	2.812
.068	HV1313TC-3-.068-5K-*	.750	2.062	.068	HV1313TC-3-.068-6K-*	.875	2.437	.068	HV1313TC-3-.068-8K-*	1.125	2.812
.082	HV1313TC-3-.082-5K-*	.734	2.437	.082	HV1313TC-3-.082-6K-*	.953	2.437	.082	HV1313TC-3-.082-8K-*	1.250	2.812
.1	HV1313TC-3-.1-5K-*	.875	2.437	.1	HV1313TC-3-.1-6K-*	1.062	2.437	.1	HV1313TC-3-.1-8K-*	1.375	2.812

* - Please insert appropriate tolerance code

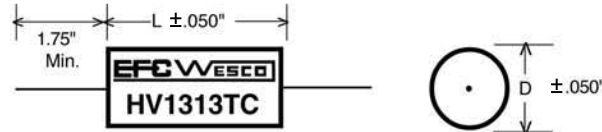


Please consult factory for special requirements, including non-standard values and sizes

HV1313TC Tubular Wrap & Fill

High Voltage Metallized Polyester Capacitors

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG



Dimensions and Ratings

Cap.	10000 VDC		
μF	Part #	D	L
.001	HV1313TC-3-.001-10K-*	.281	2.00
.0012	HV1313TC-3-.0012-10K-*	.312	2.00
.0015	HV1313TC-3-.0015-10K-*	.328	2.00
.0018	HV1313TC-3-.0018-10K-*	.359	2.00
.0022	HV1313TC-3-.0022-10K-*	.387	2.00
.0027	HV1313TC-3-.0027-10K-*	.437	2.00
.0033	HV1313TC-3-.0033-10K-*	.468	2.00
.0039	HV1313TC-3-.0039-10K-*	.515	2.00
.0047	HV1313TC-3-.0047-10K-*	.562	2.00
.0056	HV1313TC-3-.0056-10K-*	.608	2.00
.0068	HV1313TC-3-.0068-10K-*	.671	2.00
.0082	HV1313TC-3-.0082-10K-*	.734	2.00
.01	HV1313TC-3-.01-10K-*	.796	2.00
.012	HV1313TC-3-.012-10K-*	.875	2.00
.015	HV1313TC-3-.015-10K-*	.750	2.625
.018	HV1313TC-3-.018-10K-*	.796	2.625
.022	HV1313TC-3-.022-10K-*	.875	2.625
.027	HV1313TC-3-.027-10K-*	.968	2.625
.033	HV1313TC-3-.033-10K-*	1.062	2.625

Cap.	15000 VDC		
μF	Part #	D	L
.001	HV1313TC-3-.001-15K-*	.453	2.375
.0012	HV1313TC-3-.0012-15K-*	.468	2.375
.0015	HV1313TC-3-.0015-15K-*	.531	2.375
.0018	HV1313TC-3-.0018-15K-*	.578	2.375
.0022	HV1313TC-3-.0022-15K-*	.658	2.375
.0027	HV1313TC-3-.0027-15K-*	.703	2.375
.0033	HV1313TC-3-.0033-15K-*	.562	3.00
.0039	HV1313TC-3-.0039-15K-*	.609	3.00
.0047	HV1313TC-3-.0047-15K-*	.656	3.00
.0056	HV1313TC-3-.0056-15K-*	.716	3.00
.0068	HV1313TC-3-.0068-15K-*	.781	3.00
.0082	HV1313TC-3-.0082-15K-*	.859	3.00
.01	HV1313TC-3-.01-15K-*	.937	3.00
.012	HV1313TC-3-.012-15K-*	1.031	3.00
.015	HV1313TC-3-.015-15K-*	1.156	3.00

* - Please insert appropriate tolerance code



Series HV1213TC Metallized Polypropylene

Features: Flame retardant to UL94, self healing, long life availability, limited AC applications.

Construction: Tubular with axial leads, polyester tape wrap, epoxy end fill, tinned solid copper clad wire leads, dry construction.

Applications: High voltage DC power supplies.

Packaging: Axial wrap and fill (TC).

Specifications

1) Temperature Range

-55°C to 85°C at rated voltage.

2) Capacitance Range

0.001 μ F to 1 μ F

3) Capacitance Tolerances

5%, 10% or 20%.

4) Dielectric Strength

140% rated for 10 seconds minimum.

5) Voltage Ratings

2KVDC to 16KVDC. Higher ratings available with custom designs.

6) Dissipation Factor

Shall be 0.1% max. when measured at 1KHz and 25°C.

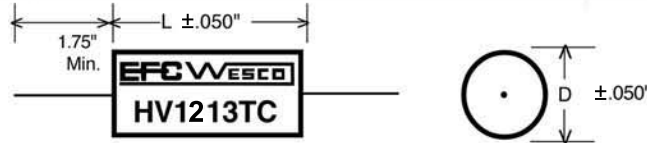


Please consult factory for special requirements, including non-standard values and sizes

HV1213TC Tubular Wrap & Fill

High Voltage Metallized Polypropylene Capacitors

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG



Dimensions and Ratings

2000 VDC				4000 VDC				6000 VDC			
Cap.	Part #	D	L	Cap.	Part #	D	L	Cap.	Part #	D	L
.001	HV1213TC-3-.001-2K-*	0.250	0.656	.001	HV1213TC-3-.001-4K-*	0.250	1.250	.001	HV1213TC-3-.001-6K-*	0.265	1.375
.0012	HV1213TC-3-.0012-2K-*	0.261	0.656	.0012	HV1213TC-3-.0012-4K-*	0.250	1.250	.0012	HV1213TC-3-.0012-6K-*	0.278	1.375
.0015	HV1213TC-3-.0015-2K-*	0.278	0.656	.0015	HV1213TC-3-.0015-4K-*	0.250	1.250	.0015	HV1213TC-3-.0015-6K-*	0.298	1.375
.0018	HV1213TC-3-.0018-2K-*	0.293	0.656	.0018	HV1213TC-3-.0018-4K-*	0.250	1.250	.0018	HV1213TC-3-.0018-6K-*	0.315	1.375
.0022	HV1213TC-3-.0022-2K-*	0.312	0.656	.0022	HV1213TC-3-.0022-4K-*	0.258	1.250	.0022	HV1213TC-3-.0022-6K-*	0.337	1.375
.0027	HV1213TC-3-.0027-2K-*	0.334	0.656	.0027	HV1213TC-3-.0027-4K-*	0.272	1.250	.0027	HV1213TC-3-.0027-6K-*	0.363	1.375
.0033	HV1213TC-3-.0033-2K-*	0.359	0.656	.0033	HV1213TC-3-.0033-4K-*	0.288	1.250	.0033	HV1213TC-3-.0033-6K-*	0.391	1.375
.0039	HV1213TC-3-.0039-2K-*	0.269	0.781	.0039	HV1213TC-3-.0039-4K-*	0.304	1.250	.0039	HV1213TC-3-.0039-6K-*	0.417	1.375
.0047	HV1213TC-3-.0047-2K-*	0.283	0.781	.0047	HV1213TC-3-.0047-4K-*	0.323	1.250	.0047	HV1213TC-3-.0047-6K-*	0.448	1.375
.0056	HV1213TC-3-.0056-2K-*	0.299	0.781	.0056	HV1213TC-3-.0056-4K-*	0.343	1.250	.0056	HV1213TC-3-.0056-6K-*	0.481	1.375
.0068	HV1213TC-3-.0068-2K-*	0.318	0.781	.0068	HV1213TC-3-.0068-4K-*	0.357	1.250	.0068	HV1213TC-3-.0068-6K-*	0.522	1.375
.0082	HV1213TC-3-.0082-2K-*	0.339	0.781	.0082	HV1213TC-3-.0082-4K-*	0.394	1.250	.0082	HV1213TC-3-.0082-6K-*	0.565	1.375
.01	HV1213TC-3-.01-2K-*	0.363	0.781	.01	HV1213TC-3-.01-4K-*	0.425	1.250	.01	HV1213TC-3-.01-6K-*	0.616	1.375
.012	HV1213TC-3-.012-2K-*	0.389	0.781	.012	HV1213TC-3-.012-4K-*	0.457	1.250	.012	HV1213TC-3-.012-6K-*	0.667	1.375
.015	HV1213TC-3-.015-2K-*	0.423	0.781	.015	HV1213TC-3-.015-4K-*	0.501	1.250	.015	HV1213TC-3-.015-6K-*	0.737	1.375
.018	HV1213TC-3-.018-2K-*	0.377	0.937	.018	HV1213TC-3-.018-4K-*	0.540	1.250	.018	HV1213TC-3-.018-6K-*	0.559	2.000
.022	HV1213TC-3-.022-2K-*	0.407	0.937	.022	HV1213TC-3-.022-4K-*	0.589	1.250	.022	HV1213TC-3-.022-6K-*	0.609	2.000
.027	HV1213TC-3-.027-2K-*	0.441	0.937	.027	HV1213TC-3-.027-4K-*	0.644	1.250	.027	HV1213TC-3-.027-6K-*	0.667	2.000
.033	HV1213TC-3-.033-2K-*	0.478	0.937	.033	HV1213TC-3-.033-4K-*	0.704	1.250	.033	HV1213TC-3-.033-6K-*	0.729	2.000
.039	HV1213TC-3-.039-2K-*	0.404	1.250	.039	HV1213TC-3-.039-4K-*	0.559	1.750	.039	HV1213TC-3-.039-6K-*	0.786	2.000
.047	HV1213TC-3-.047-2K-*	0.435	1.250	.047	HV1213TC-3-.047-4K-*	0.606	1.750	.047	HV1213TC-3-.047-6K-*	0.856	2.000
.056	HV1213TC-3-.056-2K-*	0.456	1.250	.056	HV1213TC-3-.056-4K-*	0.654	1.750	.056	HV1213TC-3-.056-6K-*	0.928	2.000
.068	HV1213TC-3-.068-2K-*	0.505	1.250	.068	HV1213TC-3-.068-4K-*	0.713	1.750	.068	HV1213TC-3-.068-6K-*	1.016	2.000
.082	HV1213TC-3-.082-2K-*	0.546	1.250	.082	HV1213TC-3-.082-4K-*	0.776	1.750	.082	HV1213TC-3-.082-6K-*	1.110	2.000
.1	HV1213TC-3-.1-2K-*	0.595	1.250	.1	HV1213TC-3-.1-4K-*	0.849	1.750	.1	HV1213TC-3-.1-6K-*	1.219	2.000
.12	HV1213TC-3-.12-2K-*	0.644	1.250	.12	HV1213TC-3-.12-4K-*	0.924	1.750	.12	HV1213TC-3-.12-6K-*	1.159	2.31
.15	HV1213TC-3-.15-2K-*	0.605	1.500	.15	HV1213TC-3-.15-4K-*	1.025	1.750	.15	HV1213TC-3-.15-6K-*	1.289	2.31
.18	HV1213TC-3-.18-2K-*	0.656	1.500	.18	HV1213TC-3-.18-4K-*	1.137	1.750	.18	HV1213TC-3-.18-6K-*	1.406	2.31
.22	HV1213TC-3-.22-2K-*	0.717	1.500	.22	HV1213TC-3-.22-4K-*	1.228	1.750	.22	HV1213TC-3-.22-6K-*	1.548	2.31
.27	HV1213TC-3-.27-2K-*	0.787	1.500	.27	HV1213TC-3-.27-4K-*	1.103	2.250				
.33	HV1213TC-3-.33-2K-*	0.763	1.750	.33	HV1213TC-3-.33-4K-*	1.213	2.250				
.39	HV1213TC-3-.39-2K-*	0.824	1.750	.39	HV1213TC-3-.39-4K-*	1.313	2.250				
.47	HV1213TC-3-.47-2K-*	0.897	1.750	.47	HV1213TC-3-.47-4K-*	1.435	2.250				
.56	HV1213TC-3-.56-2K-*	0.815	2.250	.56	HV1213TC-3-.56-4K-*	1.561	2.250				
.68	HV1213TC-3-.68-2K-*	0.891	2.250	.68	HV1213TC-3-.68-4K-*	1.511	2.750				
.82	HV1213TC-3-.82-2K-*	0.972	2.25	.82	HV1213TC-3-.82-4K-*	1.653	2.750				
1.0	HV1213TC-3-1.0-2K-*	1.066	2.25	1.0	HV1213TC-3-1.0-4K-*	1.819	2.750				

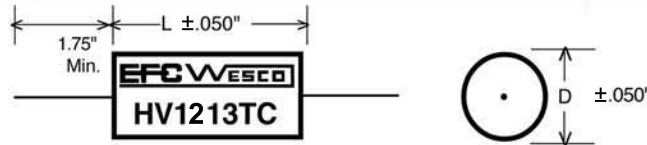
* - Please insert appropriate tolerance code



HV1213TC Tubular Wrap & Fill

High Voltage Metallized Polypropylene Capacitors

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG



Dimensions and Ratings

Cap.	8000 VDC		
μF	Part #	D	L
.001	HV1213TC-3-.001-8K-*	0.305	1.812
.0012	HV1213TC-3-.0012-8K-*	0.320	1.812
.0015	HV1213TC-3-.0015-8K-*	0.342	1.812
.0018	HV1213TC-3-.0018-8K-*	0.362	1.812
.0022	HV1213TC-3-.0022-8K-*	0.387	1.812
.0027	HV1213TC-3-.0027-8K-*	0.416	1.812
.0033	HV1213TC-3-.0033-8K-*	0.448	1.812
.0039	HV1213TC-3-.0039-8K-*	0.477	1.812
.0047	HV1213TC-3-.0047-8K-*	0.514	1.812
.0056	HV1213TC-3-.0056-8K-*	0.552	1.812
.0068	HV1213TC-3-.0068-8K-*	0.598	1.812
.0082	HV1213TC-3-.0082-8K-*	0.648	1.812
.01	HV1213TC-3-.01-8K-*	0.716	1.812
.012	HV1213TC-3-.012-8K-*	0.765	1.812
.015	HV1213TC-3-.015-8K-*	0.846	1.812
.018	HV1213TC-3-.018-8K-*	0.919	1.812
.022	HV1213TC-3-.022-8K-*	0.806	2.187
.027	HV1213TC-3-.027-8K-*	0.885	2.187
.033	HV1213TC-3-.033-8K-*	0.970	2.187
.039	HV1213TC-3-.039-8K-*	1.048	2.187
.047	HV1213TC-3-.047-8K-*	1.143	2.187
.056	HV1213TC-3-.056-8K-*	1.241	2.187
.068	HV1213TC-3-.068-8K-*	1.360	2.187
.082	HV1213TC-3-.082-8K-*	1.487	2.187
.1	HV1213TC-3-.1-8K-*	1.635	2.187

Cap.	10000 VDC		
μF	Part #	D	L
.001	HV1213TC-3-.001-10K-*	0.324	2.187
.0012	HV1213TC-3-.0012-10K-*	0.342	2.187
.0015	HV1213TC-3-.0015-10K-*	0.367	2.187
.0018	HV1213TC-3-.0018-10K-*	0.390	2.187
.0022	HV1213TC-3-.0022-10K-*	0.419	2.187
.0027	HV1213TC-3-.0027-10K-*	0.452	2.187
.0033	HV1213TC-3-.0033-10K-*	0.488	2.187
.0039	HV1213TC-3-.0039-10K-*	0.521	2.187
.0047	HV1213TC-3-.0047-10K-*	0.563	2.187
.0056	HV1213TC-3-.0056-10K-*	0.605	2.187
.0068	HV1213TC-3-.0068-10K-*	0.658	2.187
.0082	HV1213TC-3-.0082-10K-*	0.714	2.187
.01	HV1213TC-3-.01-10K-*	0.779	2.187
.012	HV1213TC-3-.012-10K-*	0.846	2.187
.015	HV1213TC-3-.015-10K-*	0.936	2.187
.018	HV1213TC-3-.018-10K-*	1.018	2.187
.022	HV1213TC-3-.022-10K-*	0.862	2.750
.027	HV1213TC-3-.027-10K-*	0.946	2.750
.033	HV1213TC-3-.033-10K-*	1.038	2.750
.039	HV1213TC-3-.039-10K-*	1.122	2.750
.047	HV1213TC-3-.047-10K-*	1.225	2.750
.056	HV1213TC-3-.056-10K-*	1.331	2.750
.068	HV1213TC-3-.068-10K-*	1.460	2.750
.082	HV1213TC-3-.082-10K-*	1.596	2.750
.1	HV1213TC-3-.1-10K-*	1.756	2.750

* - Please insert appropriate tolerance code

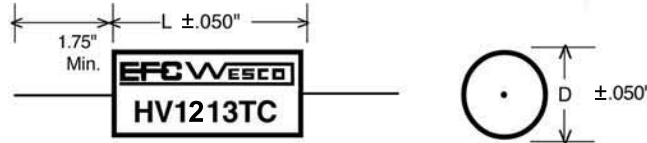


Please consult factory for special requirements, including non-standard values and sizes

HV1213TC Tubular Wrap & Fill

High Voltage Metallized Polypropylene Capacitors

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG



Dimensions and Ratings

Cap.	12500 VDC		
μF	Part #	D	L
.001	HV1213TC-3-.001-12.5K-*	0.310	2.750
.0012	HV1213TC-3-.0012-12.5K-*	0.326	2.750
.0015	HV1213TC-3-.0015-12.5K-*	0.348	2.750
.0018	HV1213TC-3-.0018-12.5K-*	0.369	2.750
.0022	HV1213TC-3-.0022-12.5K-*	0.395	2.750
.0027	HV1213TC-3-.0027-12.5K-*	0.425	2.750
.0033	HV1213TC-3-.0033-12.5K-*	0.458	2.750
.0039	HV1213TC-3-.0039-12.5K-*	0.489	2.750
.0047	HV1213TC-3-.0047-12.5K-*	0.526	2.750
.0056	HV1213TC-3-.0056-12.5K-*	0.566	2.750
.0068	HV1213TC-3-.0068-12.5K-*	0.614	2.750
.0082	HV1213TC-3-.0082-12.5K-*	0.665	2.750
.01	HV1213TC-3-.01-12.5K-*	0.725	2.750
.012	HV1213TC-3-.012-12.5K-*	0.786	2.750
.015	HV1213TC-3-.015-12.5K-*	0.869	2.750
.018	HV1213TC-3-.018-12.5K-*	0.945	2.750
.022	HV1213TC-3-.022-12.5K-*	1.036	2.750
.027	HV1213TC-3-.027-12.5K-*	1.140	2.750
.033	HV1213TC-3-.033-12.5K-*	1.253	2.750
.039	HV1213TC-3-.039-12.5K-*	1.356	2.750
.047	HV1213TC-3-.047-12.5K-*	1.482	2.750
.056	HV1213TC-3-.056-12.5K-*	1.612	2.750
.068	HV1213TC-3-.068-12.5K-*	1.769	2.750
.082	HV1213TC-3-.082-12.5K-*	1.937	2.750
.1	HV1213TC-3-.1-12.5K-*	2.132	2.750

Cap.	16000 VDC		
μF	Part #	D	L
.001	HV1213TC-3-.001-16K-*	0.368	2.750
.0012	HV1213TC-3-.0012-16K-*	0.391	2.750
.0015	HV1213TC-3-.0015-16K-*	0.423	2.750
.0018	HV1213TC-3-.0018-16K-*	0.453	2.750
.0022	HV1213TC-3-.0022-16K-*	0.489	2.750
.0027	HV1213TC-3-.0027-16K-*	0.531	2.750
.0033	HV1213TC-3-.0033-16K-*	0.577	2.750
.0039	HV1213TC-3-.0039-16K-*	0.619	2.750
.0047	HV1213TC-3-.0047-16K-*	0.670	2.750
.0056	HV1213TC-3-.0056-16K-*	0.724	2.750
.0068	HV1213TC-3-.0068-16K-*	0.789	2.750
.0082	HV1213TC-3-.0082-16K-*	0.858	2.750
.01	HV1213TC-3-.01-16K-*	0.939	2.750
.012	HV1213TC-3-.012-16K-*	1.022	2.750
.015	HV1213TC-3-.015-16K-*	1.134	2.750
.018	HV1213TC-3-.018-16K-*	1.235	2.750
.022	HV1213TC-3-.022-16K-*	1.358	2.750
.027	HV1213TC-3-.027-16K-*	1.497	2.750
.033	HV1213TC-3-.033-16K-*	1.648	2.750
.039	HV1213TC-3-.039-16K-*	1.786	2.750
.047	HV1213TC-3-.047-16K-*	1.955	2.750

* - Please insert appropriate tolerance code

Series RC1313

Resistor-Capacitor Networks

Suggested applications include: noise suppression and contact protection.

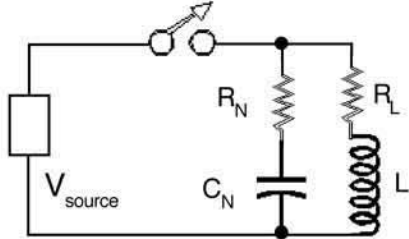


Fig. 1 (across the load)

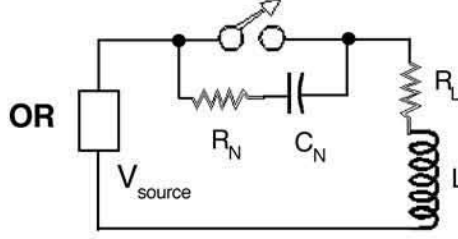


Fig. 2 (across the contacts)

The circuit to be used is dependent upon particular situations. Either circuit may be enough protection for your needs. For extreme situations, both "Load" and "Contact" protection may be required.

Recommendations

There are two types of discharges that can damage switching contacts and generate noise:

- (1) "Glow Discharges" caused by the ignition of gases between contacts. These develop at about 320 volts at about a 0.0003 inch gap range and can be sustained at a much wider gap range.
- (2) "Arc Discharges" occur at much lower voltages, about 0.5 MV/cm. Minimum voltages and currents are necessary for "Arc Discharges" to be sustained. Contact material also plays a role in sustained "Arc Discharges." (See Table 1).

MATERIAL	MIN. (VA) Arcing Voltage	MIN. (IA) Arcing Current mA
Silver	12	400
Gold	15	400
Gold Alloy	9	400
Palladium	16	800
Platinum	17.5	700

TABLE 1

The function of the RC network is to:

- (1) Keep the voltage across the contacts below 300 volts. $C \geq (I_L/300)^2 L$
- (2) Keep the rate of voltage change below $1V/\mu s$. $C \geq I_L \times 10^{-6}$
- (3) Keep the current below that described in Table 1.

Inductors do not instantly "let go" of a current. At the instant a contact opens, the current through the contact does not want to change. Using Ohms Law ($E=IR$), we can see that when the contact is closed, the resistance is essentially zero, making the voltage zero, as well. As the contact opens the resistance begins to increase. This leads to the generation of a high voltage which is generally destructive to contact life.

Capacitors will restrict an instantaneous change in voltage. A capacitor, therefore is useful to counter the destructive voltages generated at the switch contacts. When the contacts are closed, the capacitor is out of the circuit. As the contacts are opened any change in voltage is restricted by the capacitor if its value is large enough to restrict the voltage change to less than $1 V/\mu s$.

A capacitor alone is not an ideal solution. When the contacts are open, the capacitor charges up to the supply voltage. As the contact is "made," an inrush of current results limited only by a residual resistance and damage may still result. For this reason, a resistor is configured in series with the capacitor. The higher the resistance value the smaller the inrush current and the less effective is the capacitor. The voltage across the contacts when opened is equal to the load current x resistance. ($V=IR$) It is recommended to keep $V < \text{supply voltage}$. In this case, the maximum resistance of the network (R_N) will be equal to the load resistance (R_L).

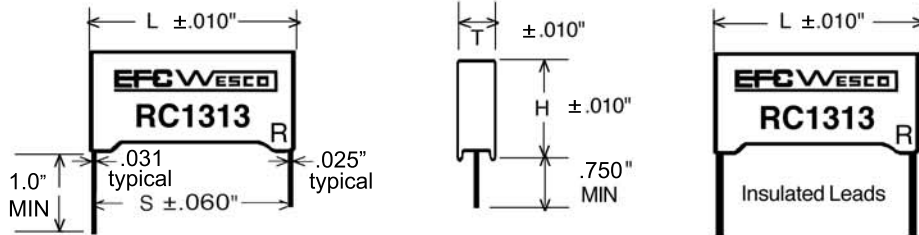
The above formulas are recommended for determining the RC network parameters. They do not identify all of the subtleties but should serve as a guideline for effective results.



Please consult factory for special requirements, including non-standard values and sizes

RC1313EFR
Rectangular Plastic Case
(Radial Leads)

**Resistor-Capacitor
Networks**



Dimensions and Ratings

Cap.	200 VDC / 125 VAC					
µF	Part #	Res. Value (Ohms)	L inches (mm)	T inches (mm)	H inches (mm)	S inches (mm)
.10	RC1313EFR-H-1-2- / ____	22-1000	.709 (18)	.295 (7.5)	.531 (13.5)	.562 (14.3)
.25	RC1313EFR-H-.25-2- / ____	22-1000	.709 (18)	.295 (7.5)	.531 (13.5)	.562 (14.3)
.50	RC1313EFR-L-5-2- / ____	22-1000	1.04 (26.5)	.236 (6)	.591 (15)	.886 (22.5)
1.0	RC1313EFR-N-1.0-2- / ____	22-1000	1.04 (26.5)	.335 (8.5)	.669 (17)	.886 (22.5)

Cap.	630 VDC / 250 VAC					
µF	Part #	Res. Value (Ohms)	L inches (mm)	T inches (mm)	H inches (mm)	S inches (mm)
.10	RC1313EFR-N-1-6.3- / ____	22-1000	1.04 (26.5)	.335 (8.5)	.669 (17)	.886 (22.5)
.25	RC1313EFR-O-.25.6.3- / ____	22-1000	1.04 (26.5)	.394 (10)	.748 (19)	.886 (22.5)
.50	RC1313EFR-Q-5-6.3- / ____	22-1000	1.26 (32)	.512 (13)	.866 (22)	1.13 (28.7)
1.0	RC1313EFR-V-1.0-6.3- / ____	22-1000	1.26 (32)	.670 (17)	1.36 (34.5)	1.13 (28.7)

Resistor Specifications

Power (Watts)	Voltage (VAC)	Type
0.25	250	Carbon Comp.
0.50	250	Carbon Comp.

Resistor Tolerance ± 10% or better

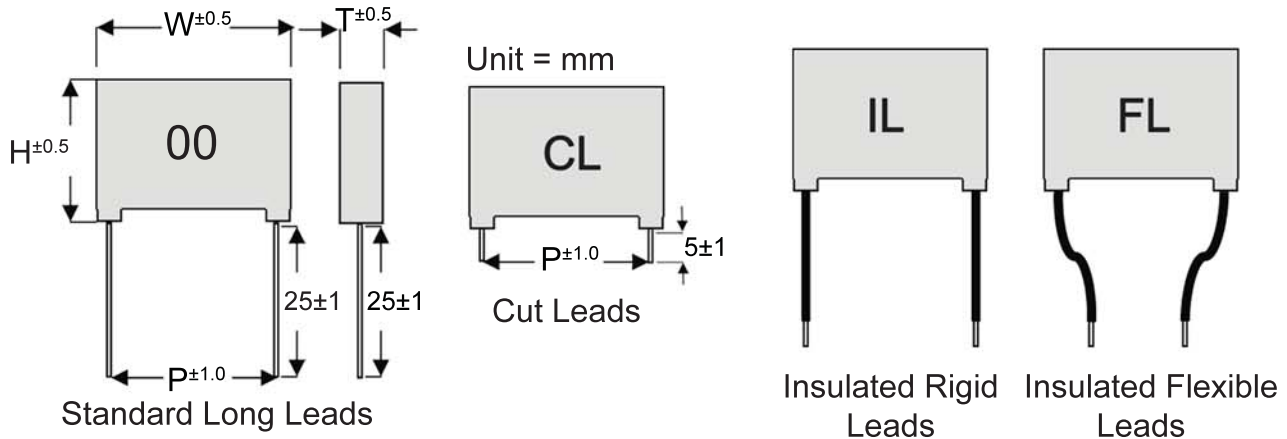
Res. Wattage:

- 2 - 1/4 Watt
- 5 - 1/2 Watt
- 6 - 1.0 Watt
- 7 - 2.0 Watt

Resistor Val. (OHMS):

First 2 digits are significant figures -
Last digit is number of zeros added.
(i.e. 101 = 100 OHMS)

EMI Suppression Capacitors



Part Number Nomenclature

M K P X 1 4 4 0 1 0 5 K 2 7 H 0 0

Type:
Metallized
Polypropylene

Rated Voltage (AC):
275 = 250 / 275
300 = 250 / 300
310 = 275 / 310
440 = 440

Class:
X1
X2
Y2

Capacitance Code (pF):
First two digits are
significant digits.
Third digit is number
of zeros.

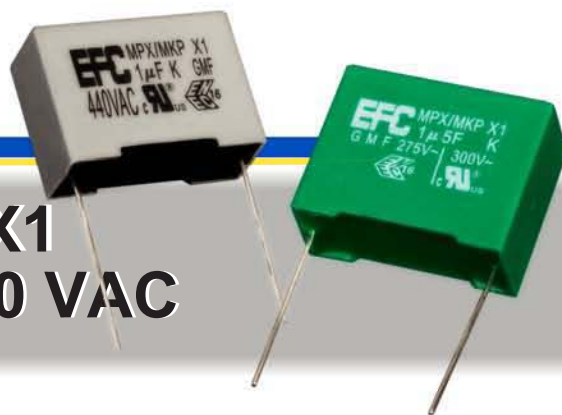
Ex: 105 = 1,000,000pF = 1 μ F

Tolerance Code:
J - $\pm 5\%$
K - $\pm 10\%$
M - $\pm 20\%$

Color:
Y - Yellow
H - Grey
G - Green
B - Blue
K - Black

Pitch (mm):
07 = 7.5
10 = 10.0
15 = 15.0
22 = 22.5
27 = 27.5
37 = 37.5

Lead Code:
00 - Standard Long
CL - Cut
IL - Insulated Rigid
FL - Insulated Flexible



Series MKPX1 X1 Class 440 / 300 VAC

Non-inductive construction using Metallized Polypropylene dielectric packaged in a UL94V-0 plastic case and epoxy resin. Applications include: EMI suppression, home appliances, lighting, audio and TV circuits, antenna coupling, across the line.



Specifications

(IEC 60384-14, GB/T14472-98, EN 60384-14, UL60384-14)



Temperature Range

-40°C - +110°C.

Rated Voltage

300 VAC/440 VAC.

Capacitance Range

0.0047μF to 2.2μF - 300 VAC

0.01μF to 2.2μF - 440 VAC

Capacitance Tolerance

±10%, ±20%

Dissipation

$C_R \leq 1.0\mu F$: .3% max at 10KHz

$C_R > 1.0\mu F$: .1% max at 1KHz

At 20°C

Dv/Dt

Up to 300V/μs - 300 VAC

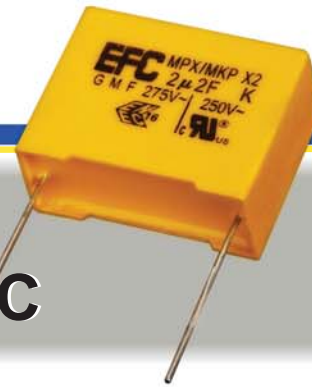
Up to 440V/μs - 440 VAC

Dielectric Withstanding Voltage

2200 VDC 2 sec.

Cap.		300 VAC				
μF	Part #	P	W (max)	H (max)	T (max)	LD (dia)
0.0047	MKPX1300472-10-00	10.0	13.0	9.0	4.0	0.6
0.0056	MKPX1300562-10-00	10.0	13.0	9.0	4.0	0.6
0.0068	MKPX1300682-10-00	10.0	13.0	11.0	4.0	0.6
0.01	MKPX1300103-10-00	10.0	13.0	11.0	4.0	0.6
0.01	MKPX1300103-15-00	15.0	18.0	11.0	5.0	0.8
0.033	MKPX1300333-10-00	10.0	13.0	11.0	5.0	0.6
0.033	MKPX1300333-15-00	15.0	18.0	11.0	5.0	0.8
0.047	MKPX1300473-15-00	15.0	18.0	11.0	5.0	0.8
0.1	MKPX1300104-15-00	15.0	18.0	12.0	6.0	0.8
0.15	MKPX1300154-22-00	22.5	26.5	15.0	6.0	0.8
0.22	MKPX1300224-22-00	22.5	26.5	16.5	7.0	0.8
0.33	MKPX1300334-22-00	15.0	18.0	18.0	10.0	0.8
0.33	MKPX1300334-22-00	22.5	26.5	16.5	7.0	0.8
0.47	MKPX1300474-22-00	22.5	26.5	17.0	8.5	0.8
0.68	MKPX1300684-27-00	27.5	32.0	20.0	11.0	0.8
1.0	MKPX1300105-27-00	27.5	32.0	23.0	13.0	0.8
1.5	MKPX1300155-27-00	27.5	32.0	25.0	14.0	0.8
2.2	MKPX1300225-27-00	27.5	31.5	27.5	17.5	0.8

Cap.		440 VAC				
μF	Part #	P	W (max)	H (max)	T (max)	LD (dia)
0.01	MKPX1440103-10-00	10.0	13.0	9.0	4.0	0.6
0.015	MKPX1440153-10-00	10.0	13.0	11.0	5.0	0.6
0.022	MKPX1440223-10-00	10.0	13.0	12.0	6.0	0.6
0.022	MKPX1440223-15-00	15.0	18.0	11.0	5.0	0.8
0.033	MKPX1440333-15-00	15.0	18.0	11.0	5.0	0.8
0.047	MKPX1440473-15-00	15.0	18.0	11.0	5.0	0.8
0.068	MKPX1440683-15-00	15.0	18.0	12.0	6.0	0.8
0.1	MKPX1440104-15-00	15.0	18.0	13.0	7.0	0.8
0.15	MKPX1440154-15-00	15.0	18.0	14.5	8.5	0.8
0.15	MKPX1440154-22-00	22.5	26.0	15.0	6.0	0.8
0.22	MKPX1440224-15-00	15.0	18.0	16.0	10.0	0.8
0.22	MKPX1440224-22-00	22.5	26.5	16.5	7.0	0.8
0.33	MKPX1440334-22-00	22.5	26.5	17.0	8.5	0.8
0.47	MKPX1440474-22-00	22.5	26.0	20.0	11.0	0.8
0.47	MKPX1440474-27-00	27.5	32.0	20.0	11.0	0.8
0.68	MKPX1440684-27-00	27.5	32.0	22.0	11.0	0.8
1.0	MKPX1440105-27-00	27.5	32.0	25.0	14.0	0.8
1.5	MKPX1440155-27-00	27.5	32.0	27.5	17.5	0.8
2.2	MKPX1440225-31-00	31.0	38.0	32.0	23.0	0.8



Series MKPX2 X2 Class 275 VAC

Non-inductive construction using Metallized Polypropylene dielectric packaged in a UL94V-0 plastic case and epoxy resin. Applications include: EMI suppression, SPS, audio and TV circuits, antenna coupling and line-by-pass, radio and across the line suppression.



Specifications



(IEC 60384-14, GB/T14472-98, EN 60384-14, UL60384-14)

Temperature Range
-40°C - +110°C.

Rated Voltage
275 VAC.

Capacitance Range
0.0047µF to 3.3µF

Capacitance Tolerance
±5%, ±10%, ±20%

Dissipation

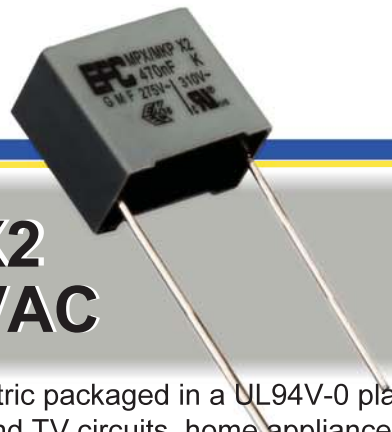
$C_R \leq 1.0\mu F$: .3% max at 10KHz.
 $C_R > 1.0\mu F$: .1% max at 10KHz.

Dv/Dt

400 V/µs 7.5 mm Pitch; 350 V/µs 10 mm Pitch; 250 V/µs 15 mm Pitch; 150 V/µs 22.5 mm Pitch; 100 V/µs 27.5 mm Pitch.

Dielectric Withstanding Voltage
1800 VDC 2 sec.

Cap.		275 VAC				
µF	Part #	P	W (max)	H (max)	T (max)	LD (dia)
0.0047	MKPX2275472-10-00	10.0	13.0	9.0	4.0	0.6
0.0056	MKPX2275562-10-00	10.0	13.0	9.0	4.0	0.6
0.0068	MKPX2275682-10-00	10.0	13.0	11.0	4.0	0.6
0.010	MKPX2275103-10-00	10.0	13.0	11.0	4.0	0.6
0.010	MKPX2275103-15-00	15.0	18.0	11.0	5.0	0.8
0.015	MKPX2275153-10-00	10.0	13.0	11.0	4.0	0.6
0.015	MKPX2275153-15-00	15.0	18.0	11.0	5.0	0.8
0.022	MKPX2275223-10-00	10.0	13.0	11.0	4.0	0.6
0.022	MKPX2275223-15-00	15.0	18.0	11.0	5.0	0.8
0.033	MKPX2275333-10-00	10.0	13.0	11.0	5.0	0.8
0.033	MKPX2275333-15-00	15.0	18.0	11.0	5.0	0.8
0.047	MKPX2275473-10-00	10.0	13.0	12.0	6.0	0.8
0.047	MKPX2275473-15-00	15.0	18.0	11.0	5.0	0.8
0.068	MKPX2275683-15-00	15.0	18.0	11.0	5.0	0.8
0.082	MKPX2275823-15-00	15.0	18.0	11.0	5.0	0.8
0.10	MKPX2275104-15-00	15.0	18.0	12.0	6.0	0.8
0.15	MKPX2275154-15-00	15.0	18.0	13.0	7.0	0.8
0.22	MKPX2275224-15-00	15.0	18.0	14.5	7.5	0.8
0.22	MKPX2275224-22-00	22.5	26.5	15.0	6.0	0.8
0.33	MKPX2275334-15-00	15.0	18.0	18.0	10.0	0.8
0.33	MKPX2275334-22-00	22.5	26.5	16.5	7.0	0.8
0.47	MKPX2275474-22-00	22.5	26.5	17.0	8.5	0.8
0.68	MKPX2275684-22-00	22.5	26.5	19.0	10.0	0.8
0.68	MKPX2275684-27-00	27.5	32.0	17.5	8.5	0.8
1.0	MKPX2275105-27-00	27.5	32.0	20.0	11.0	0.8
1.5	MKPX2275155-27-00	27.5	32.0	25.0	14.0	0.8
2.2	MKPX2275225-27-00	27.5	32.0	27.5	17.5	0.8
2.2	MKPX2275225-27-00	27.5	32.0	30.0	15.0	0.8
3.3	MKPX2275335-27-00	27.5	32.0	27.5	17.5	0.8



Series MKPX2 X2 Class 310 VAC

Non-inductive construction using Metallized Polypropylene dielectric packaged in a UL94V-0 plastic case and epoxy resin. Applications include: EMI suppression, audio and TV circuits, home appliances (mixers, fans etc.), electric tools and EMI filters.



Specifications



(IEC 60384-14, GB/T14472-98, EN 60384-14, UL60384-14)

Temperature Range
-40°C - +110°C.

Dissipation
 $C_R \leq 1.0\mu\text{F}$: .3% max at 10KHz.
 $C_R > 1.0\mu\text{F}$: .1% max at 10KHz.

Rated Voltage
310 VAC
630 VDC

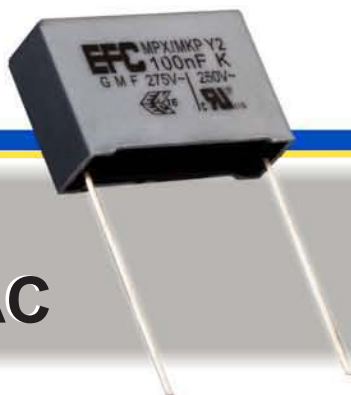
Dv/Dt
Up to 100V/ μs .

Capacitance Range
0.0047 μF to 10 μF

Dielectric Withstanding Voltage
1800 VDC 2 sec.

Capacitance Tolerance
 $\pm 5\%$, $\pm 10\%$, $\pm 20\%$

Cap.	310 VAC					
μF	Part #	P	W (max)	H (max)	T (max)	LD (dia)
0.0047	MKPX2310472-10-00	10.0	13.0	9.0	4.0	0.6
0.0056	MKPX2310562-10-00	10.0	13.0	9.0	4.0	0.6
0.0068	MKPX2310682-10-00	10.0	13.0	11.0	4.0	0.6
0.010	MKPX2310103-10-00	10.0	13.0	11.0	4.0	0.6
0.010	MKPX2310103-15-00	15.0	18.0	11.0	5.0	0.8
0.015	MKPX2310153-10-00	10.0	13.0	11.0	4.0	0.6
0.015	MKPX2310153-15-00	15.0	18.0	11.0	5.0	0.8
0.022	MKPX2310223-10-00	10.0	13.0	11.0	4.0	0.6
0.022	MKPX2310223-15-00	15.0	18.0	11.0	5.0	0.8
0.033	MKPX2310333-10-00	10.0	13.0	11.0	4.0	0.8
0.033	MKPX2310333-15-00	15.0	18.0	11.0	5.0	0.8
0.047	MKPX2310473-10-00	10.0	13.0	11.0	5.0	0.8
0.047	MKPX2310473-15-00	15.0	18.0	11.0	5.0	0.8
0.068	MKPX2310683-15-00	15.0	18.0	11.0	5.0	0.8
0.082	MKPX2310823-15-00	15.0	18.0	11.0	5.0	0.8
0.10	MKPX2310104-15-00	15.0	18.0	11.0	5.0	0.8
0.15	MKPX2310154-15-00	15.0	18.0	12.0	6.0	0.8
0.22	MKPX2310224-15-00	15.0	18.0	13.0	7.0	0.8
0.22	MKPX2310224-22-00	22.5	26.5	15.0	6.0	0.8
0.33	MKPX2310334-15-00	15.0	18.0	14.5	8.5	0.8
0.33	MKPX2310334-22-00	22.5	26.5	15.0	6.0	0.8
0.47	MKPX2310474-15-00	15.0	18.0	16.0	10.0	0.8
0.47	MKPX2310474-22-00	22.5	26.5	16.5	7.0	0.8
0.68	MKPX2310684-22-00	22.5	26.5	17.0	8.5	0.8
0.68	MKPX2310684-27-00	27.5	32.0	17.5	8.5	0.8
1.0	MKPX2310105-27-00	27.5	31.0	20.0	11.0	0.8
1.5	MKPX2310155-22-00	22.5	26.5	20.0	11.0	0.8
1.5	MKPX2310155-27-00	27.5	32.0	22.0	11.0	0.8
2.2	MKPX2310225-27-00	27.5	31.0	25.0	14.0	0.8
3.3	MKPX2310335-27-00	27.5	32.0	27.5	17.5	0.8
4.7	MKPX2310475-27-00	27.5	32.0	37.0	22.0	1.0
8.2	MKPX2310825-37-00	37.5	45.0	40.5	20.5	1.0
10.0	MKPX2310106-37-00	37.5	41.0	41.0	26.0	1.0



Series MKPY2 Y2 Class 300 VAC

Non-inductive construction using Metallized Polypropylene dielectric packaged in a UL94V-0 plastic case and epoxy resin. Applications include: Lighting, audio and TV circuits, home appliances (mixers, fans, etc.), electric tools and EMI filters.



Specifications



(IEC 60384-14, GB/T14472-98, EN 60384-14, UL60384-14)

Temperature Range

-40°C - +110°C.

Dissipation

.3% max at 10KHz.

Rated Voltage

300 VAC (UL) 300 VAC (CQC & ENEC).

Pulse Voltage

Up to 5000 VDC.

Capacitance Range

0.001µF to 0.1 µF

Dv/Dt

Up to 300V/µs.

Capacitance Tolerance

±10%, ±20%

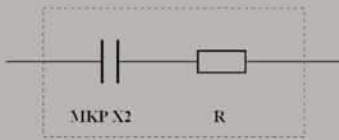
Dielectric Withstanding Voltage

2000 VAC / 3500 VDC

Cap.	300 VAC					
µF	Part #	P	W (max)	H (max)	T (max)	LD (dia)
0.0010	MKPY2300102-10-00	10.0	13.0	9.0	4.0	0.6
0.0022	MKPY2300222-10-00	10.0	13.0	11.0	4.0	0.6
0.0033	MKPY2300332-10-00	10.0	13.0	11.0	4.0	0.6
0.0047	MKPY2300472-10-00	10.0	13.0	11.0	4.0	0.6
0.0056	MKPY2300562-10-00	10.0	13.0	11.0	5.0	0.6
0.0068	MKPY2300682-10-00	10.0	13.0	11.0	5.0	0.6
0.01	MKPY2300103-10-00	10.0	13.0	12.0	6.0	0.6
0.01	MKPY2300103-15-00	15.0	18.0	11.0	5.0	0.8
0.015	MKPY2300153-15-00	15.0	18.0	11.0	5.0	0.8
0.022	MKPY2300223-15-00	15.0	18.0	12.0	6.0	0.8
0.033	MKPY2300333-15-00	15.0	18.0	13.0	7.0	0.8
0.047	MKPY2300473-15-00	15.0	18.0	14.5	8.5	0.8
0.068	MKPY2300683-15-00	15.0	18.0	16.0	10.0	0.8
0.068	MKPY2300683-22-00	22.5	26.5	16.5	7.0	0.8
0.10	MKPY2300104-22-00	22.5	26.5	17.0	8.5	0.8



Internal Connection



Series MKP RCS X2 Class 250 VAC / 275 VAC

Metallized Polypropylene dielectric capacitor and series with resistor packaged in a UL94V-0 plastic case and epoxy resin. Features include: Low DF & excellent high frequency characteristics, self-healing property and small size, withstand high pulse voltage and interference suppression, and excellent temperature characteristics. Applications include: Relay connector protective, spark and over voltage absorb circuits, and high frequency and high pulse voltage electronic circuits.



Specifications

Temperature Range
-40°C - +100°C.

Capacitance Tolerance
±10%, ±20%

Insulation Resistance
C ≤ 0.33µF IR ≥ 15000MΩ
C > 1.0µF IR > 5000S
at 20°C/100VDC/60s

Rated Voltage
250 VAC / 275 VAC.

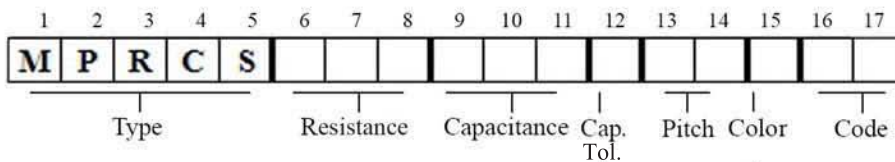
Withstand Voltage
2200 VDC 2S

Pulse Voltage
U_p 2500VDC

Capacitance Range
X2: 0.01µF to 1µF
at 20°C/1KHz

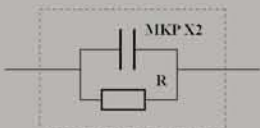
Dv/Dt
100V/µs.

Cap.	250 VAC / 275 VAC						
µF	Part #	Ω	P	W (max)	H (max)	T (max)	LD (dia)
0.01	MPRCS100103-15-00	100	15.0	18.0	11.0	5.0	0.6
0.033	MPRCS100333-15-00	100	15.0	18.0	11.0	5.0	0.6
0.047	MPRCS100473-15-00	100	15.0	18.0	14.5	7.5	0.6
0.047	MPRCS100473-22-00	100	22.5	26.5	15.0	6.0	0.6
0.1	MPRCS100104-22-00	100	22.5	26.5	15.0	6.0	0.6
0.22	MPRCS100224-22-00	100	22.5	26.5	17.0	8.5	0.6
0.33	MPRCS100334-22-00	100	22.5	26.5	17.0	8.5	0.6
0.47	MPRCS100474-27-00	100	27.5	32.0	20.0	11.0	0.6
0.68	MPRCS100684-27-00	100	27.5	32.0	20.0	11.0	0.6
0.68	MPRCP100684-27-00	100	27.5	32.0	20.0	11.0	0.6
0.82	MPRCS100824-27-00	100	27.5	32.0	23.0	13.0	0.6
1.0	MPRCS100105-27-00	100	27.5	32.0	23.0	13.0	0.6



J	±5%	Y	Yellow	B	Blue
K	±10%	H	Grey	K	Black
		G	Green		

Internal Connection



Series MKP RCP X2 Class 250 VAC / 275 VAC

Metallized Polypropylene dielectric capacitor and parallel with resistor packaged in a UL94V-0 plastic case and epoxy resin. Features include: Low DF & excellent high frequency characteristics, self-healing property and small size, withstand high pulse voltage and interference suppression, and excellent temperature characteristics. Applications include: Electric motor & starting pulse phase-shifting, energy suck in circuit and high frequency and high pulse voltage electronic circuits.

Specifications

Temperature Range

-40°C - +100°C.

Capacitance Tolerance

±5%, ±10%, ±20%

Rated Voltage

250 VAC / 275 VAC.

Dissipation

$C_R \leq 1.0\mu\text{F}$: .3% max at 20°C/10KHz.

$C_R > 1.0\mu\text{F}$: .1% max at 20°C/1KHz.

Capacitance Range

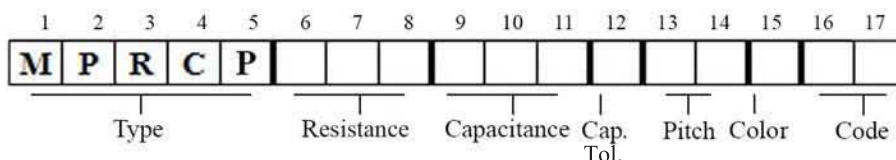
X2: 0.047μF to 1μF

at 20°C/1KHz

Dv/Dt

100V/μs.

Cap.	250 VAC / 275 VAC						
μF	Part #	MΩ	P	W (max)	H (max)	T (max)	LD (dia)
0.047	MPRCP1M0473-15-00	1.0	15.0	18.0	14.5	7.5	0.6
0.1	MPRCP1M0104-15-00	1.0	15.0	18.0	14.5	8.5	0.6
0.22	MPRCP1M0224-22-00	1.0	22.5	26.5	17.0	8.5	0.6
0.33	MPRCP1M0334-22-00	1.0	22.5	26.5	17.0	8.5	0.6
0.47	MPRCP1M0474-27-00	1.0	27.5	32.0	20.0	11.0	0.6
0.82	MPRCS1M0824-27-00	1.0	27.5	32.0	23.0	13.0	0.6
1.0	MPRCP1M0105-27-00	1.0	27.5	32.0	23.0	13.0	0.6



J	±5%	Y	Yellow	B	Blue
K	±10%	H	Grey	K	Black
		G	Green		



Series MF1206 Polypropylene Ultra Pulse Snubber

Features: Flame retardant to UL94, internal series construction of double-sided metallized carrier, foil contact plates, "self healing" metallized dielectric, high current/pulsing capabilities (see dv/dt table).
Packaging: Axial wrap and fill (TC, TF), radial lead box (EFR).

Specifications

1) Temperature Range

-55°C to 85°C at rated voltage to 105°C with 25% voltage derating.

2) Capacitance

0.001 μ F to 0.039 μ F

3) Dielectric Strength

At 25°C, 160% of rated voltage for 10 seconds.

4) Insulation Resistance

At 25°C with maximum 2 minutes charge at rated voltage, but no greater than 500 VDC. The minimum IR shall be 200,000 Megohm-Microfarads, but need not exceed 250,000 Megohms.

5) Humidity Resistance

MIL-STD. 202C, Method 103B.

6) Dissipation Factor

Shall be 0.1% max. at 25°C at 1kHz.

7) Life Test

Will withstand the application of 140% rated voltage at 85°C for 250 hours with not more than one failure in 12 permitted.

8) dV/dT:

Rated DC Voltage	Body Length (inches)		
	.709-.750	.968-1.04	1.19-1.26
1000	4500	2000	1000
1250	5500	2400	1000
1600	7500	5000	3000
2000	9500	6000	4500

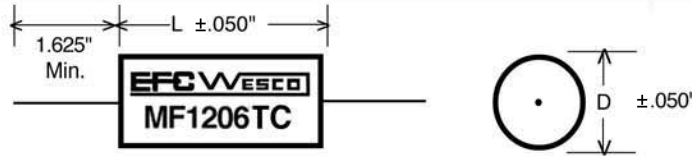


Please consult factory for special requirements, including non-standard values and sizes

MF1206TC Tubular Wrap & Fill

Polypropylene Snubber Capacitors

Lead Spec.
Tinned Copperweld
Under .250D = 24 AWG
.250 - .440D = 22AWG
Above .440D = 20 AWG



Dimensions and Ratings

Cap.	1000 VDC / 350 VAC		
µF	Part #	D in. (mm)	L in. (mm)
.001	MF1206TC-3-.001-10-*	.210 (5.4)	.750 (19.1)
.0012	MF1206TC-3-.0012-10-*	.230 (5.9)	.750 (19.1)
.0015	MF1206TC-3-.0015-10-*	.260 (6.5)	.750 (19.1)
.0022	MF1206TC-3-.0022-10-*	.310 (8.0)	.750 (19.1)
.0027	MF1206TC-3-.0027-10-*	.340 (8.7)	.750 (19.1)
.0033	MF1206TC-3-.0033-10-*	.380 (9.7)	.750 (19.1)
.0039	MF1206TC-3-.0039-10-*	.240 (6.1)	.970 (24.6)
.0047	MF1206TC-3-.0047-10-*	.260 (6.6)	.970 (24.6)
.0056	MF1206TC-3-.0056-10-*	.280 (7.2)	.970 (24.6)
.0068	MF1206TC-3-.0068-10-*	.310 (7.9)	.970 (24.6)
.0082	MF1206TC-3-.0082-10-*	.340 (8.8)	.970 (24.6)
.01	MF1206TC-3-.01-10-*	.380 (9.6)	.970 (24.6)
.012	MF1206TC-3-.012-10-*	.410 (10.4)	.970 (24.6)
.015	MF1206TC-3-.015-10-*	.460 (11.6)	.970 (24.6)
.018	MF1206TC-3-.018-10-*	.500 (12.8)	.970 (24.6)
.022	MF1206TC-3-.022-10-*	.480 (12.1)	1.190 (30.2)
.027	MF1206TC-3-.027-10-*	.530 (13.3)	1.190 (30.2)
.033	MF1206TC-3-.033-10-*	.580 (14.7)	1.190 (30.2)
.039	MF1206TC-3-.039-10-*	.630 (15.9)	1.190 (30.2)

Cap.	1250 VDC / 400 VAC		
µF	Part #	D in. (mm)	L in. (mm)
.001	MF1206TC-3-.001-1.25K-*	.240 (6.1)	.750 (19.1)
.0012	MF1206TC-3-.0012-1.25K-*	.260 (6.6)	.750 (19.1)
.0015	MF1206TC-3-.0015-1.25K-*	.290 (7.3)	.750 (19.1)
.0022	MF1206TC-3-.0022-1.25K-*	.340 (8.7)	.750 (19.1)
.0027	MF1206TC-3-.0027-1.25K-*	.240 (6.1)	.968 (24.6)
.0033	MF1206TC-3-.0033-1.25K-*	.260 (6.7)	.968 (24.6)
.0039	MF1206TC-3-.0039-1.25K-*	.290 (7.4)	.968 (24.6)
.0047	MF1206TC-3-.0047-1.25K-*	.320 (8.0)	.968 (24.6)
.0056	MF1206TC-3-.0056-1.25K-*	.340 (8.7)	.968 (24.6)
.0068	MF1206TC-3-.0068-1.25K-*	.370 (9.4)	.968 (24.6)
.0082	MF1206TC-3-.0082-1.25K-*	.410 (10.4)	.968 (24.6)
.01	MF1206TC-3-.01-1.25K-*	.430 (10.8)	.968 (24.6)
.012	MF1206TC-3-.012-1.25K-*	.460 (11.7)	.968 (24.6)
.015	MF1206TC-3-.015-1.25K-*	.470 (11.9)	1.190 (30.2)
.018	MF1206TC-3-.018-1.25K-*	.520 (13.1)	1.190 (30.2)
.022	MF1206TC-3-.022-1.25K-*	.570 (14.4)	1.190 (30.2)
.027	MF1206TC-3-.027-1.25K-*	.620 (15.8)	1.190 (30.2)

Cap.	1600 VDC / 500 VAC		
µF	Part #	D in. (mm)	L in. (mm)
.001	MF1206TC-3-.001-1.6K-*	.310 (7.9)	.750 (19.1)
.0012	MF1206TC-3-.0012-1.6K-*	.330 (8.5)	.750 (19.1)
.0015	MF1206TC-3-.0015-1.6K-*	.360 (9.2)	.750 (19.1)
.0022	MF1206TC-3-.0022-1.6K-*	.260 (6.5)	.968 (24.6)
.0027	MF1206TC-3-.0027-1.6K-*	.280 (7.1)	.968 (24.6)
.0033	MF1206TC-3-.0033-1.6K-*	.320 (8.0)	.968 (24.6)
.0039	MF1206TC-3-.0039-1.6K-*	.340 (8.6)	.968 (24.6)
.0047	MF1206TC-3-.0047-1.6K-*	.380 (9.5)	.968 (24.6)
.0056	MF1206TC-3-.0056-1.6K-*	.410 (10.3)	.968 (24.6)
.0068	MF1206TC-3-.0068-1.6K-*	.450 (11.5)	.968 (24.6)
.0082	MF1206TC-3-.0082-1.6K-*	.490 (12.5)	.968 (24.6)
.01	MF1206TC-3-.01-1.6K-*	.470 (11.8)	.968 (24.6)
.012	MF1206TC-3-.012-1.6K-*	.510 (12.8)	.968 (24.6)
.015	MF1206TC-3-.015-1.6K-*	.560 (14.2)	1.190 (30.2)
.018	MF1206TC-3-.018-1.6K-*	.610 (15.4)	1.190 (30.2)

Cap.	2000 VDC / 560 VAC		
µF	Part #	D in. (mm)	L in. (mm)
.001	MF1206TC-3-.001-2.0K-*	.250 (6.3)	.750 (19.1)
.0012	MF1206TC-3-.0012-2.0K-*	.260 (6.6)	.750 (19.1)
.0015	MF1206TC-3-.0015-2.0K-*	.280 (7.1)	.750 (19.1)
.0022	MF1206TC-3-.0022-2.0K-*	.320 (8.2)	.968 (24.6)
.0027	MF1206TC-3-.0027-2.0K-*	.350 (8.8)	.968 (24.6)
.0033	MF1206TC-3-.0033-2.0K-*	.380 (9.6)	.968 (24.6)
.0039	MF1206TC-3-.0039-2.0K-*	.400 (10.3)	.968 (24.6)
.0047	MF1206TC-3-.0047-2.0K-*	.440 (11.1)	.968 (24.6)
.0056	MF1206TC-3-.0056-2.0K-*	.470 (12.0)	.968 (24.6)
.0068	MF1206TC-3-.0068-2.0K-*	.510 (13.1)	.968 (24.6)
.0082	MF1206TC-3-.0082-2.0K-*	.480 (12.1)	1.190 (30.2)
.01	MF1206TC-3-.01-2.0K-*	.520 (13.2)	1.190 (30.2)
.012	MF1206TC-3-.012-2.0K-*	.570 (14.4)	1.190 (30.2)
.015	MF1206TC-3-.015-2.0K-*	.630 (15.9)	1.190 (30.2)

* - Please insert appropriate tolerance code

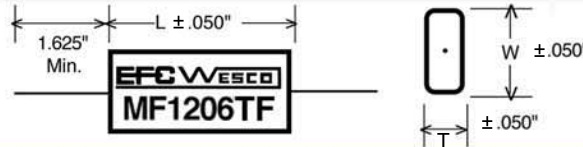


Please consult factory for special requirements, including non-standard values and sizes

MF1206TF Oval Wrap & Fill

Polypropylene Snubber Capacitors

Lead Spec.
Tinned Copperweld
Under .190T = 24 AWG
.190 - .380T = 22AWG
Above .380T = 20 AWG



Dimensions and Ratings

Cap.	1000 VDC / 350 VAC			
µF	Part #	T in. (mm)	W in. (mm)	L in. (mm)
.001	MF1206TF-3-.001-10-*	.130 (3.4)	.260 (6.6)	.750 (19.1)
.0012	MF1206TF-3-.0012-10-*	.150 (3.9)	.280 (7.1)	.750 (19.1)
.0015	MF1206TF-3-.0015-10-*	.189 (4.5)	.300 (7.7)	.750 (19.1)
.0022	MF1206TF-3-.0022-10-*	.210 (5.3)	.370 (9.5)	.750 (19.1)
.0027	MF1206TF-3-.0027-10-*	.240 (6.0)	.400 (10.3)	.750 (19.1)
.0033	MF1206TF-3-.0033-10-*	.269 (6.5)	.450 (11.5)	.750 (19.1)
.0039	MF1206TF-3-.0039-10-*	.160 (4.1)	.290 (7.3)	.970 (24.6)
.0047	MF1206TF-3-.0047-10-*	.180 (4.6)	.310 (7.8)	.970 (24.6)
.0056	MF1206TF-3-.0056-10-*	.200 (5.1)	.330 (7.8)	.970 (24.6)
.0068	MF1206TF-3-.0068-10-*	.230 (5.8)	.350 (9.0)	.970 (24.6)
.0082	MF1206TF-3-.0082-10-*	.240 (6.1)	.410 (10.3)	.970 (24.6)
.01	MF1206TF-3-.01-10-*	.270 (6.9)	.440 (11.1)	.970 (24.6)
.012	MF1206TF-3-.012-10-*	.300 (7.7)	.470 (12.0)	.970 (24.6)
.015	MF1206TF-3-.015-10-*	.350 (8.9)	.520 (13.1)	.970 (24.6)
.018	MF1206TF-3-.018-10-*	.380 (9.6)	.570 (14.6)	.970 (24.6)
.022	MF1206TF-3-.022-10-*	.370 (9.4)	.540 (13.6)	1.190 (30.2)
.027	MF1206TF-3-.027-10-*	.420 (9.7)	.590 (14.9)	1.190 (30.2)
.033	MF1206TF-3-.033-10-*	.470 (12.0)	.640 (16.2)	1.190 (30.2)
.039	MF1206TF-3-.039-10-*	.520 (13.2)	.690 (17.5)	1.190 (30.2)

Cap.	1250 VDC / 400 VAC			
µF	Part #	T in. (mm)	W in. (mm)	L in. (mm)
.001	MF1206TF-3-.001-1.25K-*	.160 (4.1)	.290 (7.2)	.750 (19.1)
.0012	MF1206TF-3-.0012-1.25K-*	.180 (4.6)	.300 (7.7)	.750 (19.1)
.0015	MF1206TF-3-.0015-1.25K-*	.210 (5.2)	.330 (8.4)	.750 (19.1)
.0022	MF1206TF-3-.0022-1.25K-*	.260 (6.6)	.390 (9.8)	.750 (19.1)
.0027	MF1206TF-3-.0027-1.25K-*	.160 (4.1)	.290 (7.3)	.968 (24.6)
.0033	MF1206TF-3-.0033-1.25K-*	.180 (4.6)	.310 (7.8)	.968 (24.6)
.0039	MF1206TF-3-.0039-1.25K-*	.190 (4.7)	.350 (8.9)	.968 (24.6)
.0047	MF1206TF-3-.0047-1.25K-*	.210 (5.3)	.380 (9.6)	.968 (24.6)
.0056	MF1206TF-3-.0056-1.25K-*	.230 (6.0)	.400 (10.2)	.968 (24.6)
.0068	MF1206TF-3-.0068-1.25K-*	.270 (6.8)	.430 (11.0)	.968 (24.6)
.0082	MF1206TF-3-.0082-1.25K-*	.290 (7.3)	.480 (12.2)	.968 (24.6)
.01	MF1206TF-3-.01-1.25K-*	.300 (7.6)	.500 (12.6)	.968 (24.6)
.012	MF1206TF-3-.012-1.25K-*	.340 (8.6)	.530 (13.6)	.968 (24.6)
.015	MF1206TF-3-.015-1.25K-*	.340 (8.6)	.540 (13.7)	1.190 (30.2)
.018	MF1206TF-3-.018-1.25K-*	.360 (9.2)	.610 (15.4)	1.190 (30.2)
.022	MF1206TF-3-.022-1.25K-*	.410 (10.4)	.650 (16.6)	1.190 (30.2)
.027	MF1206TF-3-.027-1.25K-*	.470 (11.8)	.710 (18.0)	1.190 (30.2)

Cap.	1600 VDC / 500 VAC			
µF	Part #	T in. (mm)	W in. (mm)	L in. (mm)
.001	MF1206TF-3-.001-1.6K-*	.160 (3.9)	.400 (10.2)	.750 (19.1)
.0012	MF1206TF-3-.0012-1.6K-*	.180 (4.5)	.420 (10.7)	.750 (19.1)
.0015	MF1206TF-3-.0015-1.6K-*	.210 (5.3)	.450 (11.5)	.750 (19.1)
.0022	MF1206TF-3-.0022-1.6K-*	.180 (4.5)	.300 (7.7)	.968 (24.6)
.0027	MF1206TF-3-.0027-1.6K-*	.200 (5.1)	.330 (8.3)	.968 (24.6)
.0033	MF1206TF-3-.0033-1.6K-*	.210 (5.3)	.380 (9.6)	.968 (24.6)
.0039	MF1206TF-3-.0039-1.6K-*	.230 (5.9)	.400 (10.2)	.968 (24.6)
.0047	MF1206TF-3-.0047-1.6K-*	.250 (6.4)	.450 (11.4)	.968 (24.6)
.0056	MF1206TF-3-.0056-1.6K-*	.280 (7.1)	.480 (12.1)	.968 (24.6)
.0068	MF1206TF-3-.0068-1.6K-*	.300 (7.5)	.540 (13.8)	.968 (24.6)
.0082	MF1206TF-3-.0082-1.6K-*	.340 (8.5)	.580 (14.7)	.968 (24.6)
.01	MF1206TF-3-.01-1.6K-*	.310 (7.9)	.550 (14.1)	.968 (24.6)
.012	MF1206TF-3-.012-1.6K-*	.350 (8.9)	.590 (15.1)	.968 (24.6)
.015	MF1206TF-3-.015-1.6K-*	.400 (10.2)	.650 (16.4)	1.190 (30.2)
.018	MF1206TF-3-.018-1.6K-*	.450 (11.5)	.700 (17.7)	1.190 (30.2)

Cap.	2000 VDC / 560 VAC			
µF	Part #	T in. (mm)	W in. (mm)	L in. (mm)
.001	MF1206TF-3-.001-2.0K-*	.130 (3.3)	.370 (9.5)	.750 (19.1)
.0012	MF1206TF-3-.0012-2.0K-*	.130 (3.3)	.370 (9.5)	.750 (19.1)
.0015	MF1206TF-3-.0015-2.0K-*	.130 (3.3)	.370 (9.5)	.750 (19.1)
.0022	MF1206TF-3-.0022-2.0K-*	.170 (4.2)	.410 (10.4)	.968 (24.6)
.0027	MF1206TF-3-.0027-2.0K-*	.190 (4.9)	.440 (11.1)	.968 (24.6)
.0033	MF1206TF-3-.0033-2.0K-*	.220 (5.6)	.470 (11.8)	.968 (24.6)
.0039	MF1206TF-3-.0039-2.0K-*	.250 (6.3)	.490 (12.5)	.968 (24.6)
.0047	MF1206TF-3-.0047-2.0K-*	.280 (7.1)	.530 (13.4)	.968 (24.6)
.0056	MF1206TF-3-.0056-2.0K-*	.320 (8.0)	.560 (14.2)	.968 (24.6)
.0068	MF1206TF-3-.0068-2.0K-*	.360 (9.1)	.600 (15.3)	.968 (24.6)
.0082	MF1206TF-3-.0082-2.0K-*	.320 (8.1)	.570 (14.4)	.968 (24.6)
.01	MF1206TF-3-.01-2.0K-*	.360 (9.3)	.610 (15.5)	.968 (24.6)
.012	MF1206TF-3-.012-2.0K-*	.410 (10.4)	.650 (16.6)	.968 (24.6)
.015	MF1206TF-3-.015-2.0K-*	.470 (12.0)	.720 (18.2)	1.190 (30.2)

* - Please insert appropriate tolerance code



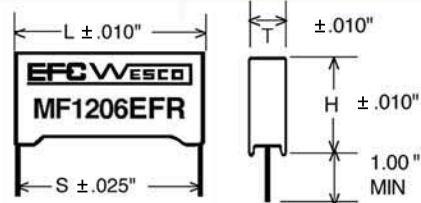
Please consult factory for special requirements, including non-standard values and sizes

MF1206EFR
Rectangular Plastic Case
(Radial Leads)

**Polypropylene
Snubber Capacitors**

Lead Spec.
Tinned Copperweld
B through E cases: 22 AWG
F through Q cases: 20 AWG

Dimensions and Ratings



Cap.	1000 VDC / 350 VAC				
μF	Part #	T in. (mm)	L in. (mm)	H in. (mm)	S in. (mm)
.001	MF1206EFR-F-.001-10-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.0012	MF1206EFR-F-.0012-10-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.0015	MF1206EFR-F-.0015-10-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.0022	MF1206EFR-G-.0022-10-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.0027	MF1206EFR-H-.0027-10-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.0033	MF1206EFR-H-.0033-10-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.0039	MF1206EFR-J-.0039-10-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.0039	MF1206EFR-L-.0039-10-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.0047	MF1206EFR-J-.0047-10-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.0047	MF1206EFR-L-.0047-10-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.0056	MF1206EFR-J-.0056-10-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.0056	MF1206EFR-L-.0056-10-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.0068	MF1206EFR-J-.0068-10-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.0068	MF1206EFR-L-.0068-10-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.0082	MF1206EFR-K-.0082-10-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.0082	MF1206EFR-M-.0082-10-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.01	MF1206EFR-K-.01-10-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.01	MF1206EFR-M-.01-10-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.012	MF1206EFR-N-.012-10-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.015	MF1206EFR-O-.015-10-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.018	MF1206EFR-O-.018-10-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.022	MF1206EFR-P-.022-10-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.027	MF1206EFR-P-.027-10-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.033	MF1206EFR-Q-.033-10-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)
.039	MF1206EFR-Q-.039-10-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)

Cap.	1250 VDC / 400 VAC				
μF	Part #	T in. (mm)	L in. (mm)	H in. (mm)	S in. (mm)
.001	MF1206EFR-F-.001-1.25K-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.0012	MF1206EFR-F-.0012-1.25K-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.0015	MF1206EFR-G-.0015-1.25K-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.0022	MF1206EFR-H-.0022-1.25K-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.0027	MF1206EFR-J-.0027-1.25K-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.0027	MF1206EFR-L-.0027-1.25K-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.0033	MF1206EFR-J-.0033-1.25K-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.0033	MF1206EFR-L-.0033-1.25K-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.0039	MF1206EFR-J-.0039-1.25K-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.0039	MF1206EFR-L-.0039-1.25K-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.0047	MF1206EFR-J-.0047-1.25K-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.0047	MF1206EFR-L-.0047-1.25K-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.0056	MF1206EFR-K-.0056-1.25K-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.0056	MF1206EFR-M-.0056-1.25K-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.0068	MF1206EFR-N-.0068-1.25K-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.0082	MF1206EFR-N-.0082-1.25K-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.01	MF1206EFR-O-.01-1.25K-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.012	MF1206EFR-O-.012-1.25K-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.015	MF1206EFR-P-.015-1.25K-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.018	MF1206EFR-P-.018-1.25K-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.022	MF1206EFR-Q-.022-1.25K-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)
.027	MF1206EFR-Q-.027-1.25K-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)

Cap.	1600 VDC / 500 VAC				
μF	Part #	T in. (mm)	L in. (mm)	H in. (mm)	S in. (mm)
.001	MF1206EFR-G-.001-1.6K-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.0012	MF1206EFR-G-.0012-1.6K-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.0015	MF1206EFR-H-.0015-1.6K-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.0022	MF1206EFR-J-.0022-1.6K-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.0022	MF1206EFR-L-.0022-1.6K-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.0027	MF1206EFR-J-.0027-1.6K-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.0027	MF1206EFR-L-.0027-1.6K-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.0033	MF1206EFR-J-.0033-1.6K-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.0033	MF1206EFR-L-.0033-1.6K-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.0039	MF1206EFR-K-.0039-1.6K-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.0039	MF1206EFR-M-.0039-1.6K-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.0047	MF1206EFR-K-.0047-1.6K-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.0047	MF1206EFR-L-.0047-1.6K-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.0056	MF1206EFR-N-.0056-1.6K-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.0068	MF1206EFR-N-.0068-1.6K-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.0082	MF1206EFR-O-.0082-1.6K-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.01	MF1206EFR-P-.01-1.6K-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.012	MF1206EFR-P-.012-1.6K-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.015	MF1206EFR-Q-.015-1.6K-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)
.018	MF1206EFR-Q-.018-1.6K-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)

Cap.	2000 VDC / 560 VAC				
μF	Part #	T in. (mm)	L in. (mm)	H in. (mm)	S in. (mm)
.001	MF1206EFR-J-.001-2.0K-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.001	MF1206EFR-L-.001-2.0K-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.0012	MF1206EFR-J-.0012-2.0K-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.0012	MF1206EFR-L-.0012-2.0K-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.0015	MF1206EFR-J-.0015-2.0K-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.0015	MF1206EFR-L-.0015-2.0K-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.0022	MF1206EFR-J-.0022-2.0K-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.0022	MF1206EFR-L-.0022-2.0K-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.0027	MF1206EFR-K-.0027-2.0K-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.0027	MF1206EFR-M-.0027-2.0K-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.0033	MF1206EFR-K-.0033-2.0K-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.0033	MF1206EFR-M-.0033-2.0K-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.0039	MF1206EFR-N-.0039-2.0K-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.0047	MF1206EFR-N-.0047-2.0K-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.0056	MF1206EFR-N-.0056-2.0K-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.0068	MF1206EFR-O-.0068-2.0K-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.0082	MF1206EFR-O-.0082-2.0K-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.01	MF1206EFR-P-.01-2.0K-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.012	MF1206EFR-P-.012-2.0K-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.015	MF1206EFR-Q-.015-2.0K-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)

* - Please insert appropriate tolerance code



41 Interstate Lane, Waterbury, CT 06705 . (203) 755.5629 . (203) 755.0659 Fax

www.filmcapacitors.com

Series M1213 Metallized Polypropylene Pulse Capacitors

Features: Flame retardant to UL94, high peak/pulse current, low ESR, low inductance, high frequency operation, self healing.

Applications: DC, AC and pulse applications.

Packaging: Axial wrap and fill (TF, TC), radial lead box (EFR).

Specifications

1) Temperature Range

-55°C to +85°C at rated voltage.

2) Capacitance

0.047μF to 4.7μF

3) Dielectric Strength

At 25°C, 200% of rated voltage when applied terminal to terminal for 10 seconds through a current limiting resistance.

4) Insulation Resistance

At 25°C after 2 minutes charge time at rated voltage or 500 VDC, whichever is less, the minimum IR shall be 80,000 Megohm-Microfarads, but need not exceed 120,000 Megohms.

5) Humidity Resistance

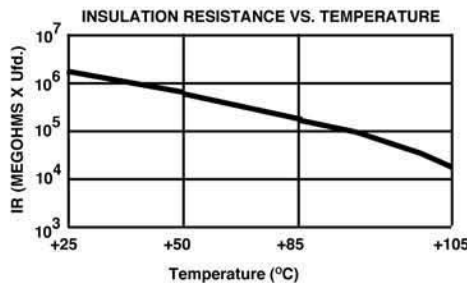
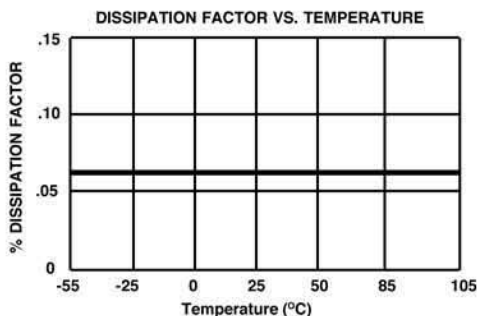
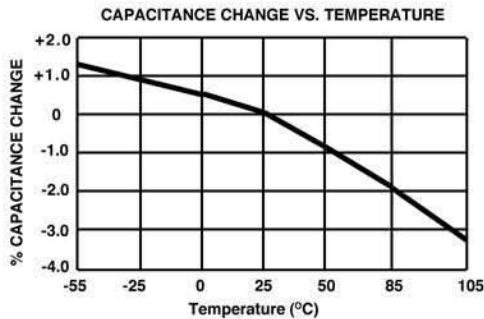
Series M1213 shall meet the requirements of MIL-STD. 202, Method 103B.

6) Dissipation Factor

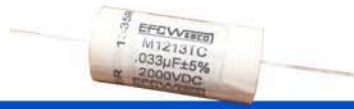
Shall be 0.1% max. when measured at 1 KHz and 25°C.

7) Life Test

Will withstand the application of 150% rated voltage at + 85°C for 250 hours with not more than one failure in 12 permitted.



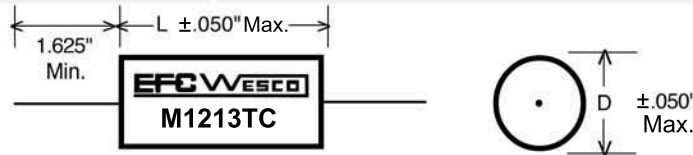
Typical Temperature Curves Metallized Polypropylene



M1213TC

Tubular Wrap & Fill

Metallized Polypropylene Pulse Capacitors

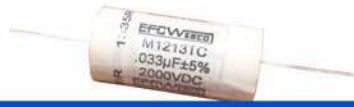


Dimensions and Ratings

Cap.		850 VDC / 450 VAC						
μF	Part #	D inches (mm)	L inches (mm)	Lead Dia.	dv/dt (V/μsec.)	PK Current (amps)	100 kHz ESR (Milliohms)	RMS Current (amps)
0.10	M1213TC-3-.1-8.5-*	.390	1.300	.031	450	45	16.5	5
0.15	M1213TC-3-.15-8.5-*	.460	1.300	.031	450	68	11.5	7
0.22	M1213TC-3-.22-8.5-*	.540	1.300	.040	450	99	8.1	9
0.33	M1213TC-3-.33-8.5-*	.640	1.300	.040	450	149	5.7	9
0.47	M1213TC-3-.47-8.5-*	.760	1.300	.040	450	212	4.7	9
0.68	M1213TC-3-.68-8.5-*	.720	1.800	.040	295	201	5.1	9
1.00	M1213TC-3-1.0-8.5-*	.860	1.800	.050	295	295	3.9	12
1.50	M1213TC-3-1.5-8.5-*	1.030	1.800	.050	295	443	3.1	12
2.00	M1213TC-3-2.0-8.5-*	1.040	2.300	.050	205	410	3.9	12
3.00	M1213TC-3-3.0-8.5-*	1.300	2.300	.050	205	615	3.4	12

Cap.		1200 VDC / 500 VAC						
μF	Part #	D inches (mm)	L inches (mm)	Lead Dia.	dv/dt (V/μsec.)	PK Current (amps)	100 kHz ESR (Milliohms)	RMS Current (amps)
0.047	M1213TC-3-.047-1.2K-*	.390	1.300	.031	710	33	27.0	4
0.068	M1213TC-3-.068-1.2K-*	.460	1.300	.031	710	48	19.0	5
0.10	M1213TC-3-.1-1.2K-*	.540	1.300	.031	710	71	13.4	7
0.15	M1213TC-3-.15-1.2K-*	.650	1.300	.040	710	107	9.3	9
0.22	M1213TC-3-.22-1.2K-*	.790	1.300	.040	710	156	6.8	9
0.33	M1213TC-3-.33-1.2K-*	.760	1.800	.040	450	149	7.2	9
0.47	M1213TC-3-.47-1.2K-*	.860	1.800	.040	450	212	5.7	9
0.68	M1213TC-3-.68-1.2K-*	1.070	1.800	.050	450	306	4.3	12
1.00	M1213TC-3-1.0-1.2K-*	1.260	1.800	.050	450	450	3.4	12
1.50	M1213TC-3-1.5-1.2K-*	1.280	2.300	.050	280	420	4.1	12
2.00	M1213TC-3-2.0-1.2K-*	1.450	2.300	.050	280	560	3.7	12

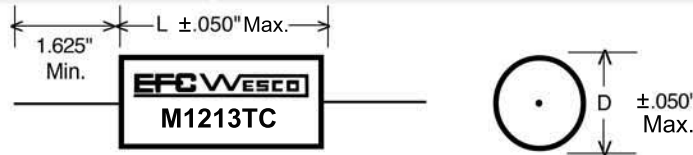
* - Please insert appropriate tolerance code



M1213TC

Tubular Wrap & Fill

Metallized Polypropylene Pulse Capacitors



Dimensions and Ratings

Cap.	2000 VDC / 630 VAC							
μF	Part #	D inches (mm)	L inches (mm)	Lead Dia.	dv/dt (V/μsec.)	PK Current (amps)	100 kHz ESR (Milliohms)	RMS Current (amps)
0.022	M1213TC-3-.022-2K-*	.420	1.300	.031	1150	25	48.0	3
0.033	M1213TC-3-.033-2K-*	.500	1.300	.031	1150	38	32.4	4
0.047	M1213TC-3-.047-2K-*	.580	1.300	.040	1150	54	23.2	6
0.068	M1213TC-3-.068-2K-*	.690	1.300	.040	1150	78	16.3	7
0.10	M1213TC-3-.1-2K-*	.810	1.300	.040	1150	115	11.5	9
0.15	M1213TC-3-.15-2K-*	.770	1.800	.040	710	107	11.2	9
0.22	M1213TC-3-.22-2K-*	.920	1.800	.050	710	156	8.1	12
0.33	M1213TC-3-.33-2K-*	1.110	1.800	.050	710	234	5.9	12
0.47	M1213TC-3-.47-2K-*	1.310	1.800	.050	710	334	4.8	12
0.68	M1213TC-3-.68-2K-*	1.340	2.300	.050	405	275	5.4	12

Cap.	3000 VDC / 750 VAC							
μF	Part #	D inches (mm)	L inches (mm)	Lead Dia.	dv/dt (V/μsec.)	PK Current (amps)	100 kHz ESR (Milliohms)	RMS Current (amps)
0.0068	M1213TC-3-.0068-3K-*	.400	1.300	.031	2050	14	130.0	2
0.010	M1213TC-3-.01-3K-*	.470	1.300	.031	2050	21	91.0	3
0.015	M1213TC-3-.015-3K-*	.560	1.300	.040	2050	31	61.0	4
0.022	M1213TC-3-.022-3K-*	.660	1.300	.040	2050	45	42.0	5
0.033	M1213TC-3-.033-3K-*	.800	1.300	.040	2050	68	27.0	7
0.047	M1213TC-3-.047-3K-*	.720	1.800	.040	1250	59	25.0	9
0.068	M1213TC-3-.068-3K-*	.850	1.800	.040	1250	85	18.0	9
0.100	M1213TC-3-.1-3K-*	1.010	1.800	.050	1250	125	13.0	12
0.150	M1213TC-3-.15-3K-*	1.230	1.800	.050	1250	188	9.0	12
0.220	M1213TC-3-.22-3K-*	1.230	2.300	.050	745	164	9.4	12

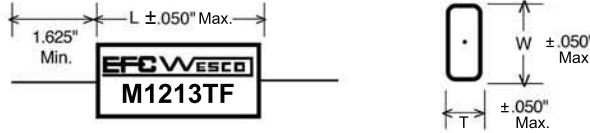
* - Please insert appropriate tolerance code



M1213TF

Oval Wrap & Fill

Metallized Polypropylene Pulse Capacitors



Dimensions and Ratings

Cap.	850 VDC / 450 VAC								
µF	Part #	T inches (mm)	W inches (mm)	L inches (mm)	Lead Dia.	dv/dt (V/µsec.)	PK Current (amps)	100 kHz ESR (Milliohms)	RMS Current (amps)
0.10	M1213TF-3-.1-8.5-*	0.290	0.460	1.300	.031	450	45	16.5	5
0.15	M1213TF-3-.15-8.5-*	0.360	0.530	1.300	.031	450	68	11.5	7
0.22	M1213TF-3-.22-8.5-*	0.420	0.620	1.300	.040	450	99	8.1	9
0.33	M1213TF-3-.33-8.5-*	0.520	0.720	1.300	.040	450	149	5.7	9
0.47	M1213TF-3-.47-8.5-*	0.640	0.840	1.300	.040	450	212	4.7	9
0.68	M1213TF-3-.68-8.5-*	0.600	0.800	1.800	.040	295	201	5.1	9
1.00	M1213TF-3-1.0-8.5-*	0.740	0.940	1.800	.050	295	295	3.9	12
1.50	M1213TF-3-1.5-8.5-*	0.910	1.110	1.800	.050	295	443	3.1	12
2.00	M1213TF-3-2.0-8.5-*	0.920	1.120	2.300	.050	205	410	3.9	12
3.00	M1213TF-3-3.0-8.5-*	1.180	1.380	2.300	.050	205	615	3.4	12

Cap.	1200 VDC / 500 VAC								
µF	Part #	T inches (mm)	W inches (mm)	L inches (mm)	Lead Dia.	dv/dt (V/µsec.)	PK Current (amps)	100 kHz ESR (Milliohms)	RMS Current (amps)
0.047	M1213TF-3-.047-1.2K-*	0.290	0.460	1.300	.031	710	33	27.0	4
0.068	M1213TF-3-.068-1.2K-*	0.360	0.530	1.300	.031	710	48	19.0	5
0.10	M1213TF-3-.1-1.2K-*	0.420	0.620	1.300	.031	710	71	13.4	7
0.15	M1213TF-3-.15-1.2K-*	0.530	0.730	1.300	.040	710	107	9.3	9
0.22	M1213TF-3-.22-1.2K-*	0.670	0.870	1.300	.040	710	156	6.8	9
0.33	M1213TF-3-.33-1.2K-*	0.640	0.840	1.800	.040	450	149	7.2	9
0.47	M1213TF-3-.47-1.2K-*	0.740	0.940	1.800	.040	450	212	5.7	9
0.68	M1213TF-3-.68-1.2K-*	0.950	1.150	1.800	.050	450	306	4.3	12
1.00	M1213TF-3-1.0-1.2K-*	1.140	1.340	1.800	.050	450	450	3.4	12
1.50	M1213TF-3-1.5-1.2K-*	1.160	1.360	2.300	.050	280	420	4.1	12
2.00	M1213TF-3-2.0-1.2K-*	1.330	1.530	2.300	.050	280	560	3.7	12

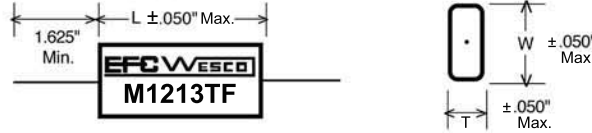
* - Please insert appropriate tolerance code



M1213TF

Oval Wrap & Fill

Metallized Polypropylene Pulse Capacitors



Dimensions and Ratings

Cap.		2000 VDC / 630 VAC							
µF	Part #	T inches (mm)	W inches (mm)	L inches (mm)	Lead Dia.	dv/dt (V/µsec.)	PK Current (amps)	100 kHz ESR (Milliohms)	RMS Current (amps)
0.022	M1213TF-3-.022-2K-*	0.320	0.490	1.300	.031	1150	25	48.0	3
0.033	M1213TF-3-.033-2K-*	0.380	0.580	1.300	.031	1150	38	32.4	4
0.047	M1213TF-3-.047-2K-*	0.460	0.660	1.300	.040	1150	54	23.2	6
0.068	M1213TF-3-.068-2K-*	0.570	0.770	1.300	.040	1150	78	16.3	7
0.10	M1213TF-3-.1-2K-*	0.690	0.890	1.300	.040	1150	115	11.5	9
0.15	M1213TF-3-.15-2K-*	0.650	0.850	1.800	.040	710	107	11.2	9
0.22	M1213TF-3-.22-2K-*	0.800	1.000	1.800	.050	710	156	8.1	12
0.33	M1213TF-3-.33-2K-*	0.990	1.190	1.800	.050	710	234	5.9	12
0.47	M1213TF-3-.47-2K-*	1.190	1.390	1.800	.050	710	334	4.8	12
0.68	M1213TF-3-.68-2K-*	1.220	1.420	2.300	.050	405	275	5.4	12

Cap.		3000 VDC / 750 VAC							
µF	Part #	T inches (mm)	W inches (mm)	L inches (mm)	Lead Dia.	dv/dt (V/µsec.)	PK Current (amps)	100 kHz ESR (Milliohms)	RMS Current (amps)
0.0068	M1213TF-3-.0068-3K-*	0.300	0.470	1.300	.031	2050	14	130.0	2
0.010	M1213TF-3-.01-3K-*	0.350	0.550	1.300	.031	2050	21	91.0	3
0.015	M1213TF-3-.015-3K-*	0.440	0.640	1.300	.040	2050	31	61.0	4
0.022	M1213TF-3-.022-3K-*	0.540	0.740	1.300	.040	2050	45	42.0	5
0.033	M1213TF-3-.033-3K-*	0.680	0.880	1.300	.040	2050	68	27.0	7
0.047	M1213TF-3-.047-3K-*	0.600	0.800	1.800	.040	1250	59	25.0	9
0.068	M1213TF-3-.068-3K-*	0.730	0.930	1.800	.040	1250	85	18.0	9
0.100	M1213TF-3-.1-3K-*	0.890	1.090	1.800	.050	1250	125	13.0	12
0.150	M1213TF-3-.15-3K-*	1.110	1.310	1.800	.050	1250	188	9.0	12
0.220	M1213TF-3-.22-3K-*	1.110	1.310	2.300	.050	745	164	9.4	12

* - Please insert appropriate tolerance code

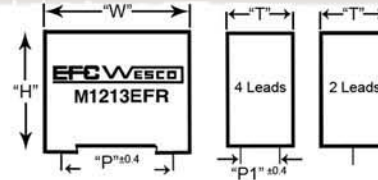


Please consult factory for special requirements, including non-standard values and sizes

M1213EFR
Rectangular Plastic Case
(Radial Leads)

Metallized Polypropylene Pulse Capacitors

Dimensions and Ratings



Cap.		850 VDC / 500 VAC												
μF	Part #	"T" mm	"W" mm	"H" mm	"P" mm	"P1" mm	I _{PEAK} AMPS	I _{RMS} AMPS 100kHz @ 70°C			ESR (mΩ) Max @100kHz			dV/dT V/μS
								d=0.8 2 wires	d=1.2 2 wires	d=1.2 4 wires	d=0.8 2 wires	d=1.2 2 wires	d=1.2 4 wires	
.15	M1213EFR-32-.15-8.5-*	11.0	32.0	20.0	27.5	-	184	8.0	8.0	-	14.2	13.6	-	1225
.22	M1213EFR-32-.22-8.5-*	11.0	32.0	20.0	27.5	-	270	9.0	10.0	-	10.1	9.4	-	1225
.33	M1213EFR-32-.33-8.5-*	16.0	32.0	25.5	27.5	-	405	9.0	12.9	-	7.5	6.8	-	1225
.33	M1213EFR-34-.33-8.5-*	16.0	32.0	25.5	27.5	5.1	405	-	-	14.0	-	-	5.9	1225
.47	M1213EFR-32-.47-8.5-*	18.0	32.0	30.0	27.5	-	577	9.0	13.9	-	6.2	5.2	-	1225
.47	M1213EFR-34-.47-8.5-*	18.0	32.0	30.0	27.5	5.1	577	-	-	14.0	-	-	4.3	1225
.82	M1213EFR-32-.82-8.5-*	20.0	42.0	41.0	37.5	-	615	9.0	13.9	-	6.5	5.4	-	750
.82	M1213EFR-34-.82-8.5-*	20.0	42.0	41.0	37.5	10.2	615	-	-	22.0	-	-	4.2	750
1.00	M1213EFR-32-1.0-8.5-*	20.0	42.0	41.0	37.5	-	750	9.0	13.9	-	6.3	5.2	-	750
1.00	M1213EFR-34-1.0-8.5-*	20.0	42.0	41.0	37.5	10.2	750	-	-	23.0	-	-	4.1	750
1.50	M1213EFR-32-1.5-8.5-*	32.0	42.0	35.0	37.5	-	750	9.0	13.9	-	5.0	4.7	-	750
1.50	M1213EFR-34-1.5-8.5-*	32.0	42.0	35.0	37.5	10.2	750	-	-	28.0	-	-	3.8	750
2.20	M1213EFR-32-2.2-8.5-*	35.0	57.5	51.0	52.5	-	1034	9.0	13.9	-	5.9	5.1	-	470
2.20	M1213EFR-34-2.2-8.5-*	35.0	57.5	51.0	52.5	20.3	1034	-	-	29.0	-	-	4.6	470
3.00	M1213EFR-32-3.0-8.5-*	35.0	57.5	51.0	52.5	-	1410	9.0	13.9	-	5.6	4.5	-	470
3.00	M1213EFR-34-3.0-8.5-*	35.0	57.5	51.0	52.5	20.3	1410	-	-	29.0	-	-	3.3	470
4.00	M1213EFR-32-4.0-8.5-*	35.0	57.5	60.5	52.5	-	1880	9.0	13.9	-	5.0	3.8	-	470
4.00	M1213EFR-34-4.0-8.5-*	35.0	57.5	60.5	52.5	20.3	1880	-	-	29.0	-	-	2.6	470
4.70	M1213EFR-32-4.7-8.5-*	35.0	57.5	60.5	52.5	-	2209	9.0	13.9	-	4.6	3.5	-	470
4.70	M1213EFR-34-4.7-8.5-*	35.0	57.5	60.5	52.5	20.3	2209	-	-	29.0	-	-	-	470

* - Please insert appropriate tolerance code

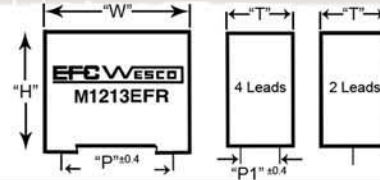


Please consult factory for special requirements, including non-standard values and sizes

M1213EFR
Rectangular Plastic Case
(Radial Leads)

Metallized Polypropylene Pulse Capacitors

Dimensions and Ratings



Cap.		1000 VDC / 600 VAC												
µF	Part #	"T" mm	"W" mm	"H" mm	"P" mm	"P1" mm	I _{PEAK} AMPS	I _{RMS} AMPS 100kHz @ 70°C			ESR (mΩ) Max @100kHz			dV/dT V/µs
								d=0.8	d=1.2	d=1.2	d=0.8	d=1.2	d=1.2	
								2 wires	2 wires	4 wires	2 wires	2 wires	4 wires	
.15	M1213EFR-32-.15-10-*	11.0	32.0	20.0	27.5	-	201	8.0	8.0	-	13.2	12.6	-	1340
.22	M1213EFR-32-.22-10-*	11.0	32.0	20.0	27.5	-	295	9.0	10.9	-	9.7	9.1	-	1340
.33	M1213EFR-32-.33-10-*	16.0	32.0	25.5	27.5	-	442	9.0	14.0	-	7.3	6.5	-	1340
.33	M1213EFR-34-.33-10-*	16.0	32.0	25.5	27.5	5.1	442	-	-	15.0	-	-	5.5	1340
.47	M1213EFR-32-.47-10-*	18.0	32.0	30.0	27.5	-	630	9.0	14.0	-	5.9	5.1	-	1340
.47	M1213EFR-34-.47-10-*	18.0	32.0	30.0	27.5	5.1	630	-	-	20.0	-	-	4.2	1340
.82	M1213EFR-32-.82-10-*	20.0	42.0	41.0	37.5	-	678	9.0	13.9	-	6.2	5.1	-	827
.82	M1213EFR-34-.82-10-*	20.0	42.0	41.0	37.5	10.2	678	-	-	22.0	-	-	3.8	827
1.00	M1213EFR-32-1.0-10-*	20.0	42.0	41.0	37.5	-	827	9.0	13.9	-	6.0	5.1	-	827
1.00	M1213EFR-34-1.0-10-*	20.0	42.0	41.0	37.5	10.2	827	-	-	23.0	-	-	3.4	827
1.50	M1213EFR-32-1.5-10-*	32.0	42.0	35.0	37.5	-	1240	9.0	13.9	-	4.6	3.7	-	827
1.50	M1213EFR-34-1.5-10-*	32.0	42.0	35.0	37.5	10.2	1240	-	-	29.0	-	-	2.7	827
2.20	M1213EFR-32-2.2-10-*	35.0	57.5	51.0	52.5	-	1126	9.0	13.9	-	5.9	5.1	-	512
2.20	M1213EFR-34-2.2-10-*	35.0	57.5	51.0	52.5	20.3	1126	-	-	29.0	-	-	4.3	512
3.00	M1213EFR-32-3.0-10-*	35.0	57.5	51.0	52.5	-	1536	9.0	13.9	-	5.6	4.5	-	512
3.00	M1213EFR-34-3.0-10-*	35.0	57.5	51.0	52.5	20.3	1536	-	-	29.0	-	-	3.3	512
4.70	M1213EFR-32-4.7-10-*	35.0	57.5	60.5	52.5	-	2406	9.0	13.9	-	4.6	3.5	-	512
4.70	M1213EFR-34-4.7-10-*	35.0	57.5	60.5	52.5	20.3	2406	-	-	29.0	-	-	2.2	512

Cap.		1200 VDC / 630 VAC												
µF	Part #	"T" mm	"W" mm	"H" mm	"P" mm	"P1" mm	I _{PEAK} AMPS	I _{RMS} AMPS 100kHz @ 70°C			ESR (mΩ) Max @100kHz			dV/dT V/µs
								d=0.8	d=1.2	d=1.2	d=0.8	d=1.2	d=1.2	
								2 wires	2 wires	4 wires	2 wires	2 wires	4 wires	
.10	M1213EFR-32-.1-1.2K-*	11.0	32.0	20.0	27.5	-	157	7.0	7.0	-	17.2	16.7	-	1570
.15	M1213EFR-32-.15-1.2K-*	13.0	32.0	27.0	27.5	-	236	9.0	10.0	-	12.1	11.5	-	1570
.22	M1213EFR-32-.22-1.2K-*	13.0	32.0	27.0	27.5	-	345	9.0	10.0	-	9.1	8.3	-	1570
.22	M1213EFR-34-.22-1.2K-*	13.0	32.0	27.0	27.5	5.1	345	-	-	13.0	-	-	7.5	1570
.33	M1213EFR-32-.33-1.2K-*	18.0	32.0	30.0	27.5	-	518	9.0	14.0	-	7.0	6.0	-	1570
.33	M1213EFR-34-.33-1.2K-*	18.0	32.0	30.0	27.5	5.1	518	-	-	17.8	-	-	5.0	1570
.68	M1213EFR-32-.68-1.2K-*	20.0	42.0	41.0	37.5	-	656	9.0	14.0	-	7.0	6.0	-	965
.68	M1213EFR-34-.68-1.2K-*	20.0	42.0	41.0	37.5	10.2	656	-	-	19.8	-	-	4.8	965
.82	M1213EFR-32-.82-1.2K-*	20.0	42.0	41.0	37.5	-	791	9.0	14.0	-	5.6	4.6	-	965
.82	M1213EFR-34-.82-1.2K-*	20.0	42.0	41.0	37.5	10.2	791	-	-	25.8	-	-	3.5	965
1.00	M1213EFR-32-1.0-1.2K-*	20.0	42.0	41.0	37.5	-	965	9.0	14.0	-	5.5	4.5	-	965
1.00	M1213EFR-34-1.0-1.2K-*	20.0	42.0	41.0	37.5	10.2	965	-	-	26.2	-	-	3.4	965
1.20	M1213EFR-32-1.2-1.2K-*	32.0	42.0	35.0	37.5	-	1158	9.0	14.0	-	5.1	4.0	-	965
1.20	M1213EFR-34-1.2-1.2K-*	32.0	42.0	35.0	37.5	10.2	1158	-	-	29.0	-	-	3.0	965

* - Please insert appropriate tolerance code

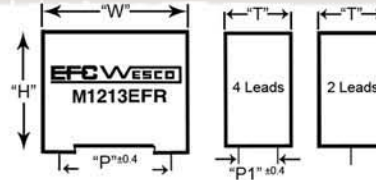


Please consult factory for special requirements, including non-standard values and sizes

M1213EFR
Rectangular Plastic Case
(Radial Leads)

Metallized Polypropylene Pulse Capacitors

Dimensions and Ratings



Cap.	2000 VDC / 700 VAC													
μF	Part #	"T" mm	"W" mm	"H" mm	"P" mm	"P1" mm	I _{PEAK} AMPS	I _{RMS} AMPS 100kHz @ 70°C			ESR (mΩ) Max @100kHz			dV/dT V/μs
								d=0.8 2 wires	d=1.2 2 wires	d=1.2 4 wires	d=0.8 2 wires	d=1.2 2 wires	d=1.2 4 wires	
0.033	M1213EFR-32-.033-2K-*	11.0	32.0	20.0	27.5	-	73	5.0	5.0	-	39.8	39.0	-	2200
0.047	M1213EFR-32-.047-2K-*	11.0	32.0	20.0	27.5	-	103	5.9	5.9	-	28.6	28.0	-	2200
0.068	M1213EFR-32-.068-2K-*	13.0	32.0	27.0	27.5	-	150	8.0	8.0	-	20.0	19.5	-	2200
0.10	M1213EFR-32-.1-2K-*	16.0	32.0	25.5	27.5	-	220	9.0	10.0	-	14.5	13.8	-	2200
0.10	M1213EFR-34-.1-2K-*	16.0	32.0	25.5	27.5	5.1	220	-	-	11.0	-	-	13.1	2200
0.15	M1213EFR-32-.15-2K-*	18.0	32.0	30.0	27.5	-	330	9.0	14.0	-	10.5	9.8	-	2200
0.15	M1213EFR-34-.15-2K-*	18.0	32.0	30.0	27.5	5.1	330	-	-	15.2	-	-	8.7	2200
0.33	M1213EFR-32-.33-2K-*	20.0	42.0	41.0	37.5	-	459	9.0	14.0	-	8.0	7.0	-	1390
0.33	M1213EFR-34-.33-2K-*	20.0	42.0	41.0	37.5	10.2	459	-	-	17.1	-	-	6.0	1390
0.47	M1213EFR-32-.47-2K-*	32.0	42.0	35.0	37.5	-	653	9.0	14.0	-	6.8	6.2	-	1390
0.47	M1213EFR-34-.47-2K-*	32.0	42.0	35.0	37.5	10.2	653	-	-	24.0	-	-	5.2	1390
1.20	M1213EFR-32-1.2-2K-*	35.0	57.5	51.0	52.5	20.3	1014	9.0	14.0	-	6.9	6.3	-	845
1.20	M1213EFR-34-1.2-2K-*	35.0	57.5	51.0	52.5	20.3	1014	-	-	27.8	-	-	5.1	845
1.50	M1213EFR-32-1.5-2K-*	35.0	57.5	51.0	52.5	20.3	1267	9.0	14.0	-	6.2	5.0	-	845
1.50	M1213EFR-34-1.2-2K-*	35.0	57.5	51.0	52.5	20.3	1267	-	-	29.0	-	-	3.8	845

Cap.	3000 VDC / 750 VAC													
μF	Part #	"T" mm	"W" mm	"H" mm	"P" mm	"P1" mm	I _{PEAK} AMPS	I _{RMS} AMPS 100kHz @ 70°C			ESR (mΩ) Max @100kHz			dV/dT V/μs
								d=0.8 2 wires	d=1.2 2 wires	d=1.2 4 wires	d=0.8 2 wires	d=1.2 2 wires	d=1.2 4 wires	
0.022	M1213EFR-32-.022-3K-*	11.0	32.0	20.0	27.5	-	74	5.0	5.0	-	47.5	47.1	-	3350
0.033	M1213EFR-32-.033-3K-*	13.0	32.0	27.0	27.5	-	111	7.0	7.0	-	32.5	32.0	-	3350
0.047	M1213EFR-32-.047-3K-*	16.0	32.0	25.5	27.5	-	157	9.0	9.0	-	23.5	22.7	-	3350
0.047	M1213EFR-34-.047-3K-*	16.0	32.0	25.5	27.5	5.1	157	-	-	9.0	-	-	22.0	3350
0.056	M1213EFR-32-.056-3K-*	16.0	32.0	25.5	27.5	-	188	9.0	9.5	-	19.4	18.2	-	3350
0.056	M1213EFR-34-.056-3K-*	16.0	32.0	25.5	27.5	5.1	188	-	-	10.8	-	-	16.7	3350
0.068	M1213EFR-32-.068-3K-*	16.0	32.0	25.5	27.5	-	227	9.0	10.0	-	17.1	16.0	-	3350
0.068	M1213EFR-34-.068-3K-*	16.0	32.0	25.5	27.5	5.1	228	-	-	11.0	-	-	15.2	3350
0.10	M1213EFR-32-.1-3K-*	18.0	32.0	30.0	27.5	-	335	9.0	13.0	-	12.2	11.4	-	3350
0.10	M1213EFR-34-.1-3K-*	18.0	32.0	30.0	27.5	5.1	335	-	-	15.0	-	-	10.3	3350

* - Please insert appropriate tolerance code

Series SP1213

High Current Metallized Polypropylene

Features: Flame retardant to UL94, special metallization, high-tech terminations, high frequency.

Applications: Hi-tech switch mode power supplies.

Packaging: Axial wrap and fill (TC).

Specifications

1) Temperature Range

-55°C to +105°C at rated voltage.

2) Capacitance

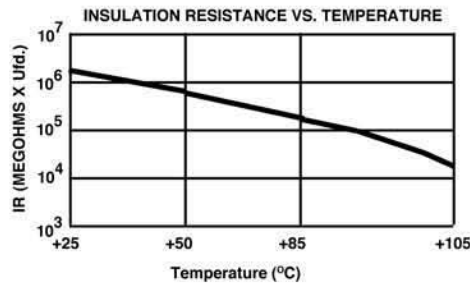
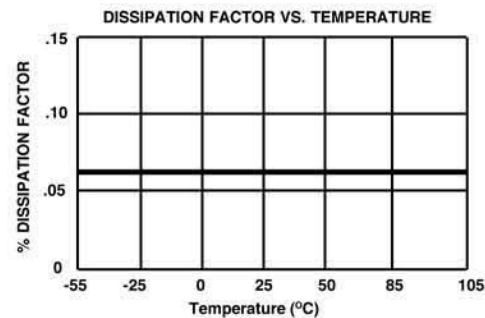
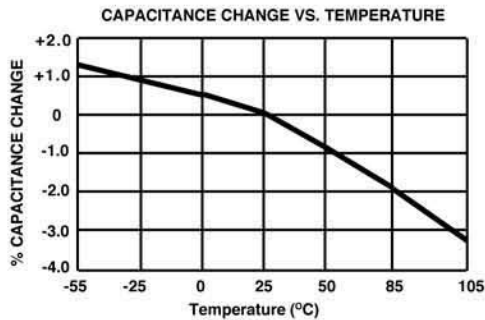
0.15µF to 30µF

3) Insulation Resistance

150,000 Megohm-Microfarads (need not exceed 300,000 Megohms) when measured at rated voltage at 25°C.

4) Dissipation Factor

Shall be 0.1% max. when measured at 25°C.

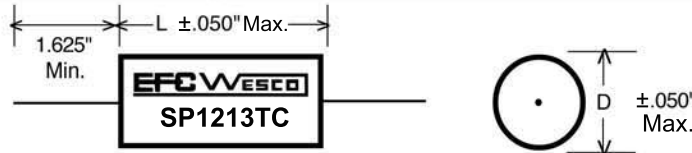


**Typical Temperature Curves
Metallized Polypropylene**



SP1213TC Tubular Wrap & Fill

High Current Metallized Polypropylene Capacitors



Dimensions and Ratings

Cap.	250 VDC/160 VAC							
µF	Part #	D (in.)	L (in.)	Lead Dia.	dv/dt (V/µsec.)	PK Current (amps)	100 kHz ESR (Milliohms)	RMS Current (amps)
1.0	SP1213TC-3-1.0-2.5-*	.440	.831	.031	61.0	61.0	6.5	6.0
2.0	SP1213TC-3-2.0-2.5-*	.460	1.300	.031	33.0	66.0	11.0	6.0
3.0	SP1213TC-3-3.0-2.5-*	.560	1.300	.040	33.0	99.0	8.1	8.4
5.0	SP1213TC-3-5.0-2.5-*	.700	1.300	.040	33.0	165.0	5.2	9.0
10.0	SP1213TC-3-10.0-2.5-*	.780	1.800	.040	21.0	210.0	5.3	9.0
15.0	SP1213TC-3-15.0-2.5-*	.950	1.800	.050	21.0	315.0	3.8	12.0
20.0	SP1213TC-3-20.0-2.5-*	1.090	1.800	.050	21.0	420.0	3.3	12.0
30.0	SP1213TC-3-30.0-2.5-*	1.140	2.300	.050	16.0	480.0	4.1	12.0

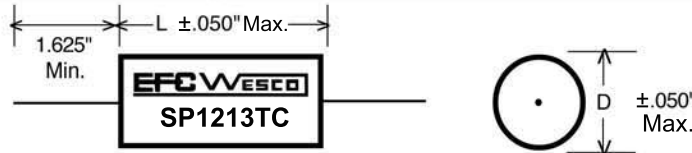
Cap.	400 VDC/250 VAC							
µF	Part #	D (in.)	L (in.)	Lead Dia.	dv/dt (V/µsec.)	PK Current (amps)	100 kHz ESR (Milliohms)	RMS Current (amps)
1.0	SP1213TC-3-1.0-4-*	.500	1.300	.040	47.0	47.0	8.2	7.0
2.0	SP1213TC-3-2.0-4-*	.700	1.300	.040	47.0	94.0	4.6	9.0
3.0	SP1213TC-3-3.0-4-*	.840	1.300	.040	47.0	141.0	3.6	9.0
5.0	SP1213TC-3-5.0-4-*	.880	1.800	.040	31.0	155.0	4.0	9.0
10.0	SP1213TC-3-10.0-4-*	1.230	1.800	.050	31.0	310.0	2.8	12.0
20.0	SP1213TC-3-20.0-4-*	1.430	2.300	.050	20.0	400.0	3.9	12.0
30.0	SP1213TC-3-30.0-4-*	1.600	2.300	.050	20.0	600.0	3.5	12.0

* - Please insert appropriate tolerance code



SP1213TC Tubular Wrap & Fill

High Current Metallized Polypropylene Capacitors



Dimensions and Ratings

Cap.	600 VDC/330 VAC							
µF	Part #	D (in.)	L (in.)	Lead Dia.	dv/dt (V/µsec.)	PK Current (amps)	100 kHz ESR (Milliohms)	RMS Current (amps)
0.47	SP1213TC-3-.47-6-*	.460	1.300	.031	120.0	56	13.2	6.2
0.68	SP1213TC-3-.68-6-*	.540	1.300	.031	120.0	82	9.5	7.0
1.00	SP1213TC-3-1.0-6-*	.640	1.300	.040	120.0	120	6.7	9.0
2.00	SP1213TC-3-2.0-6-*	.700	1.800	.040	80.0	160	6.3	9.0
3.00	SP1213TC-3-3.0-6-*	.840	1.800	.040	80.0	240	4.9	9.0
5.00	SP1213TC-3-5.0-6-*	1.060	1.800	.050	80.0	400	3.6	12.0
10.00	SP1213TC-3-10.0-6-*	1.270	2.300	.050	60.0	600	5.3	12.0

Cap.	850 VDC/450 VAC							
µF	Part #	D (in.)	L (in.)	Lead Dia.	dv/dt (V/µsec.)	PK Current (amps)	100 kHz ESR (Milliohms)	RMS Current (amps)
0.15	SP1213TC-3-.15-8.5-*	.400	1.300	.031	210.0	32	14.4	5.1
0.22	SP1213TC-3-.22-8.5-*	.470	1.300	.031	210.0	46	10.2	7.0
0.33	SP1213TC-3-.33-8.5-*	.560	1.300	.040	210.0	69	7.0	9.0
0.47	SP1213TC-3-.47-8.5-*	.660	1.300	.040	210.0	99	5.2	9.0
0.68	SP1213TC-3-.68-8.5-*	.790	1.300	.040	210.0	143	4.1	9.0
1.00	SP1213TC-3-1.0-8.5-*	.780	1.800	.040	140.0	140	4.8	9.0
2.00	SP1213TC-3-2.0-8.5-*	1.060	1.800	.050	140.0	280	3.1	12.0
3.00	SP1213TC-3-3.0-8.5-*	1.040	2.300	.050	95.0	285	3.5	12.0
5.00	SP1213TC-3-5.0-8.5-*	1.340	2.300	.050	95.0	475	3.1	12.0

* - Please insert appropriate tolerance code



Series PC Direct Mount Snubber Capacitors

Specifications

1) Construction

Polypropylene dielectric internal series design with double sided metallized dry construction.

2) Applications

Uninterruptable power supplies (UPS), SCR commutation, Switch mode power supply (SMPS) protection, IGBT module protection.

3) Characteristics

Low ESR, low dielectric absorption, screw terminals for easy IGBT mounting, high RMS/peak currents, low self-inductance.

4) Capacitance

0.022 μ F to 4.7 μ F

5) Voltage

850 VDC to 3000 VDC (500 VAC to 750 VAC).



PC1213EFR
Rectangular Plastic Case
(Radial Leads)

Direct Mount Snubber Capacitors

Dimensions and Ratings

Cap.		850 VDC / 500 VAC							
µF	Part #	" T "	" W "	" H "	I _{PEAK} AMPS	I _{RMS}	ESR	dV/dT	
						AMP	(mΩ)		
		mm	mm	mm		S	Max	V/µs	
.15	PC1213EFR-?.15-8.5-*	18.0	32.0	30.0	184	8.0	14.2	1225	
.22	PC1213EFR-?.22-8.5-*	18.0	32.0	30.0	270	9.0	10.1	1225	
.33	PC1213EFR-?.33-8.5-*	18.0	32.0	30.0	405	9.0	7.5	1225	
.47	PC1213EFR-?.47-8.5-*	18.0	32.0	30.0	577	9.0	6.2	1225	
.82	PC1213EFR-?.82-8.5-*	20.0	42.0	41.0	615	9.0	6.5	750	
1.00	PC1213EFR-?-1.0-8.5-*	20.0	42.0	41.0	750	9.0	6.3	750	
1.50	PC1213EFR-?-1.5-8.5-*	32.0	42.0	35.0	750	9.0	5.0	750	
2.20	PC1213EFR-?-2.2-8.5-*	35.0	57.5	51.0	1034	9.0	5.9	470	
3.00	PC1213EFR-?-3.0-8.5-*	35.0	57.5	51.0	1410	9.0	5.6	470	
4.00	PC1213EFR-?-4.0-8.5-*	35.0	57.5	60.5	1880	9.0	5.0	470	
4.70	PC1213EFR-?-4.7-8.5-*	35.0	57.5	60.5	2209	9.0	4.6	470	

Cap.		1000 VDC / 600 VAC							
µF	Part #	" T "	" W "	" H "	I _{PEAK} AMPS	I _{RMS}	ESR	dV/dT	
						AMP	(mΩ)		
		mm	mm	mm		S	Max	V/µs	
.15	PC1213EFR-?.15-10-*	18.0	32.0	30.0	201	8.0	13.2	1340	
.22	PC1213EFR-?.22-10-*	18.0	32.0	30.0	295	9.0	9.7	1340	
.33	PC1213EFR-?.33-10-*	18.0	32.0	30.0	442	9.0	7.3	1340	
.47	PC1213EFR-?.47-10-*	18.0	32.0	30.0	630	9.0	5.9	1340	
.82	PC1213EFR-?.82-10-*	20.0	42.0	41.0	678	9.0	6.2	827	
1.00	PC1213EFR-?-1.0-10-*	20.0	42.0	41.0	827	9.0	6.0	827	
1.50	PC1213EFR-?-1.5-10-*	32.0	42.0	35.0	1240	9.0	4.6	827	
2.20	PC1213EFR-?-2.2-10-*	35.0	57.5	51.0	1126	9.0	5.9	512	
3.00	PC1213EFR-?-3.0-10-*	35.0	57.5	51.0	1536	9.0	5.6	512	
4.70	PC1213EFR-?-4.7-10-*	35.0	57.5	60.5	2406	9.0	4.6	512	

? - Please insert appropriate terminal style
* - Please insert appropriate tolerance code



PC1213EFR
Rectangular Plastic Case
(Radial Leads)

Direct Mount Snubber Capacitors

Dimensions and Ratings

Cap.		1200 VDC / 630 VAC						
µF	Part #	"T" mm	"W" mm	"H" mm	I _{PEAK} AMPS	I _{RMS} AMP S	ESR (mΩ) Max	dV/dT V/µs
.10	PC1213EFR-?.-1-1.25K-*	18.0	32.0	30.0	157	7.0	17.2	1570
.15	PC1213EFR-?.-15-1.25K-*	18.0	32.0	30.0	236	9.0	12.1	1570
.22	PC1213EFR-?.-22-1.25K-*	18.0	32.0	30.0	345	9.0	9.1	1570
.33	PC1213EFR-?.-33-1.25K-*	18.0	32.0	30.0	518	9.0	7.0	1570
.68	PC1213EFR-?.-68-1.25K-*	20.0	42.0	41.0	656	9.0	7.0	965
.82	PC1213EFR-?.-82-1.25K-*	20.0	42.0	41.0	791	9.0	5.6	965
1.00	PC1213EFR-?.-1.0-1.25K-*	20.0	42.0	41.0	965	9.0	5.5	965
1.20	PC1213EFR-?.-1.2-1.25K-*	32.0	42.0	35.0	1158	9.0	5.1	965

Cap.		2000 VDC / 700 VAC						
µF	Part #	"T" mm	"W" mm	"H" mm	I _{PEAK} AMPS	I _{RMS} AMP S	ESR (mΩ) Max	dV/dT V/µs
0.033	PC1213EFR-?.-033-2K-*	18.0	32.0	30.0	73	5.0	39.8	2200
0.047	PC1213EFR-?.-047-2K-*	18.0	32.0	30.0	103	5.9	28.6	2200
0.068	PC1213EFR-?.-068-2K-*	18.0	32.0	30.0	150	8.0	20.0	2200
0.10	PC1213EFR-?.-1-2K-*	18.0	32.0	30.0	220	9.0	14.5	2200
0.15	PC1213EFR-?.-15-2K-*	18.0	32.0	30.0	330	9.0	10.5	2200
0.33	PC1213EFR-?.-33-2K-*	20.0	42.0	41.0	459	9.0	8.0	1390
0.47	PC1213EFR-?.-47-2K-*	32.0	42.0	35.0	653	9.0	6.8	1390
1.20	PC1213EFR-?.-1.2-2K-*	35.0	57.5	51.0	1014	9.0	6.9	845
1.50	PC1213EFR-?.-1.5-2K-*	35.0	57.5	51.0	1267	9.0	6.2	845

Cap.		3000 VDC / 750 VAC						
µF	Part #	"T" mm	"W" mm	"H" mm	I _{PEAK} AMPS	I _{RMS} AMP S	ESR (mΩ) Max	dV/dT V/µs
0.022	PC1213EFR-?.-022-3K-*	18.0	32.0	30.0	74	5.0	47.5	3350
0.033	PC1213EFR-?.-033-3K-*	18.0	32.0	30.0	111	7.0	32.5	3350
0.047	PC1213EFR-?.-047-3K-*	18.0	32.0	30.0	157	9.0	23.5	3350
0.056	PC1213EFR-?.-056-3K-*	18.0	32.0	30.0	188	9.0	19.4	3350
0.068	PC1213EFR-?.-068-3K-*	18.0	32.0	30.0	227	9.0	17.1	3350
0.10	PC1213EFR-?.-1-3K-*	18.0	32.0	30.0	335	9.0	12.2	3350

? - Please insert appropriate terminal style
* - Please insert appropriate tolerance code

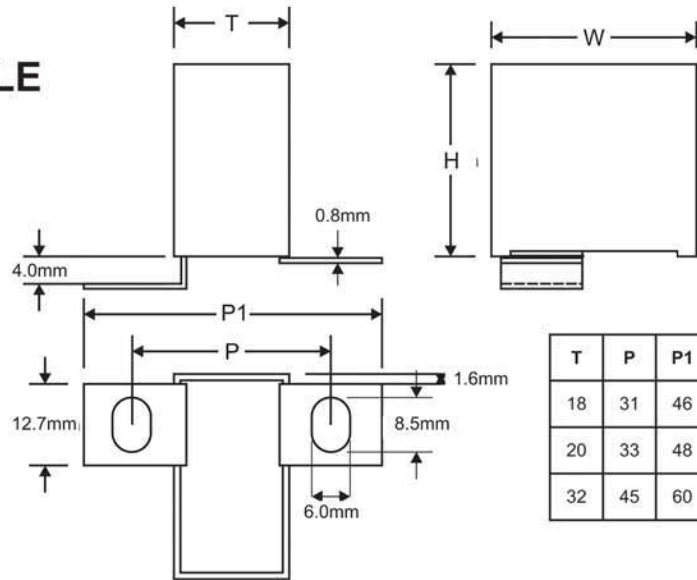


PC1213EFR
Rectangular Plastic Case
(Radial Leads)

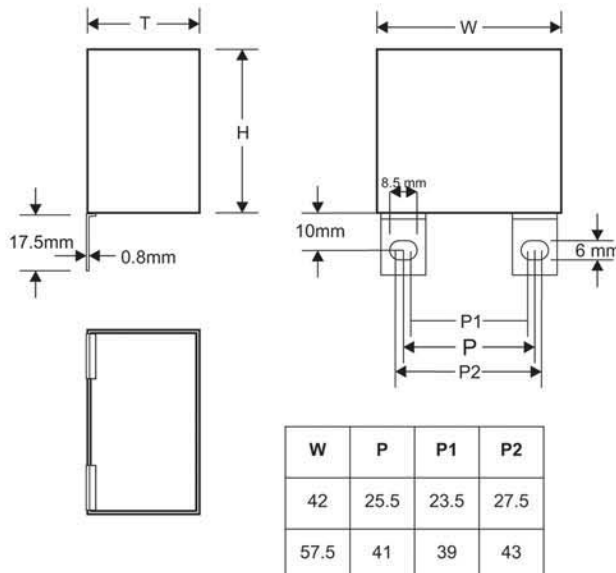
Direct Mount Snubber Capacitors

Terminal Styles

R
STYLE



S
STYLE



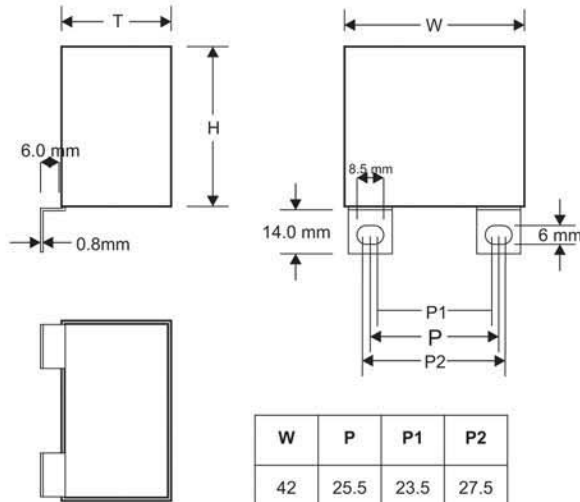


PC1213EFR
Rectangular Plastic Case
(Radial Leads)

Direct Mount Snubber Capacitors

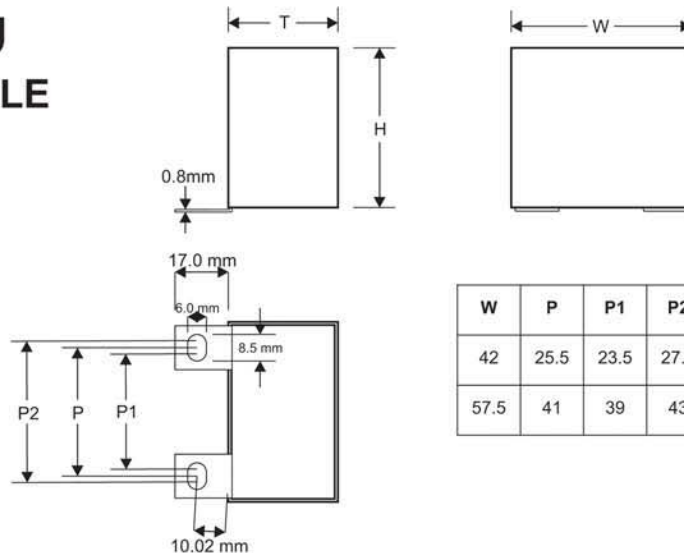
Terminal Styles

T
STYLE



W	P	P1	P2
42	25.5	23.5	27.5
57.5	41	39	43

U
STYLE



W	P	P1	P2
42	25.5	23.5	27.5
57.5	41	39	43

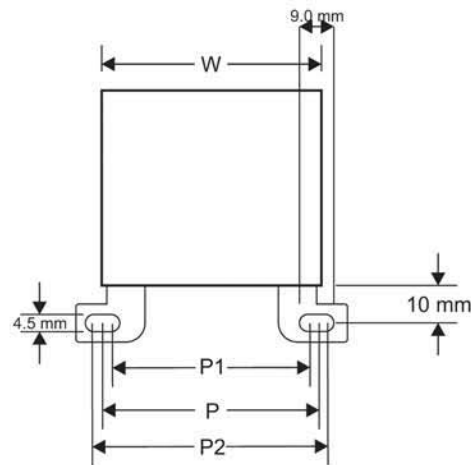
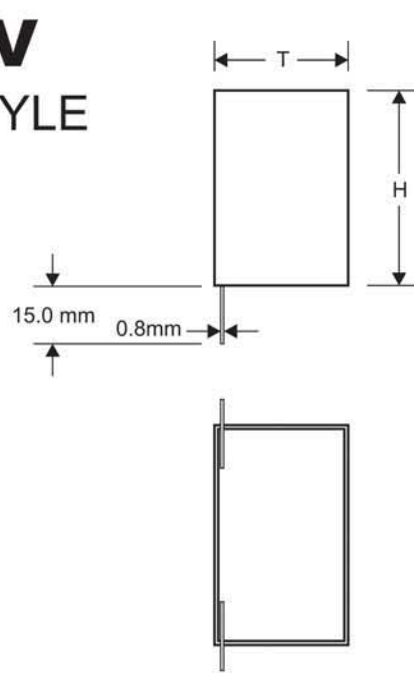


PC1213EFR
 Rectangular Plastic Case
 (Radial Leads)

Direct Mount Snubber Capacitors

Terminal Styles

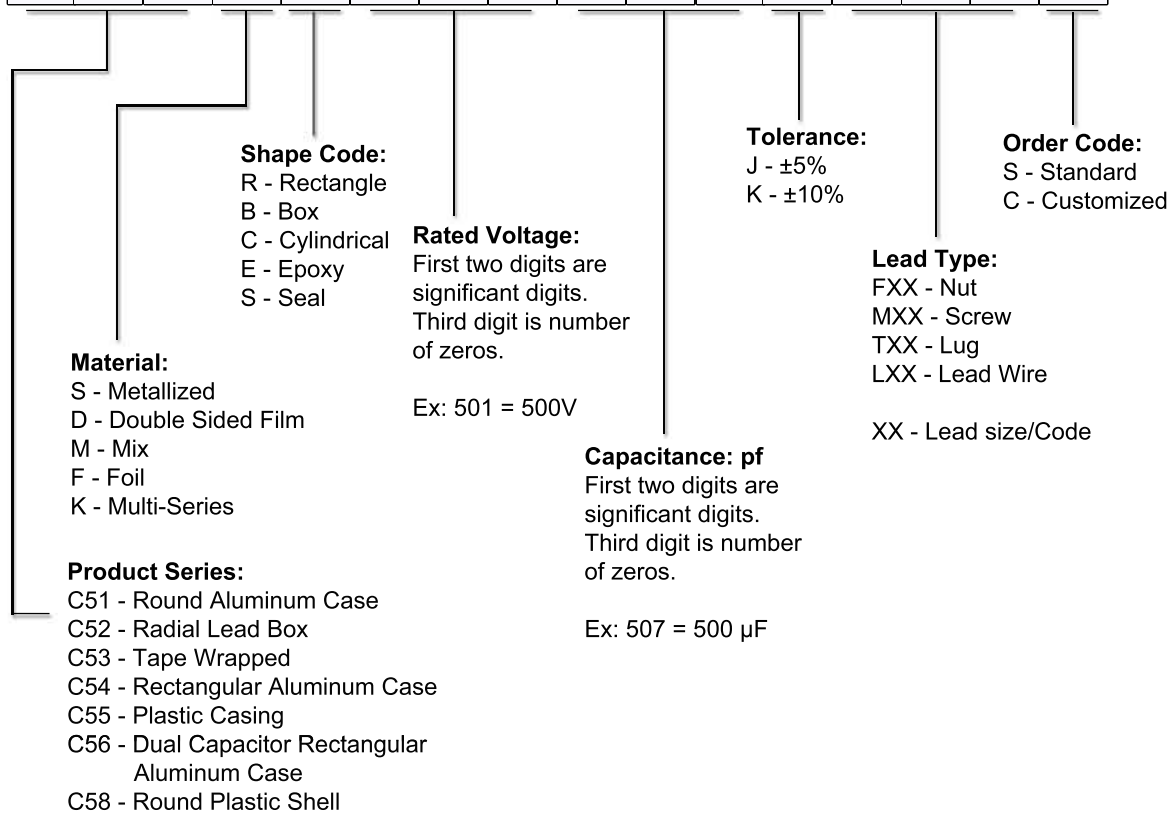
V
 STYLE



W	P	P1	P2
42	43	39	47
57.5	58.5	54.5	62.5

DC Link Nomenclature

C 5 1 S C 5 0 1 5 0 7 K T X X C





Series C51 DC-Link Polypropylene Capacitors

Features: Flame retardant to UL94, extended metalized film, dry connection, aluminum case with resin sealing, copper nut or screw terminals, high stability, low ESR and ESL, self healing.

Applications: DC-link and filter for UPS, SMPSs, inverter, welding machine power.

Specifications

1) Operating Temperature

-40°C to 85°C.

2) Capacitance

80µF to 4000µF

3) Rated Voltage

500 VDC to 2000 VDC.

4) Tolerance

±5% or ±10%.

5) Test Voltage Between Terminals and Case

3000V 50Hz 60s, 25°C±5°C.

6) Test Voltage Between Terminals

1.5 rated DC voltage 10s 25°C±5°C.

7) Dissipation Factor

0.2% max at 25°C±5°C, 100Hz

8) Insulation Resistance

5000 MΩ•µF min, at 100 VDC, 25°C±5°C, 60s

9) Life Expectancy

200000h at rated DC voltage and 70°C.

10) Reference Standards

GB/T 17702, IEC 61071

Surge Voltage Limits

Surge Voltage (VDC)	Max Duration
1.1 x Rated	30% of service period
1.15 x Rated	30 min./day
1.2 x Rated	5 min./day
1.3 x Rated	1 min./day
1.5 x Rated	100mS/day; no more than 1000 times



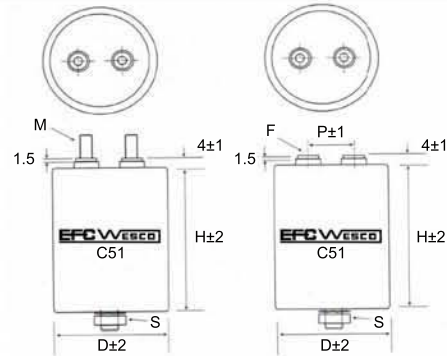
Please consult factory for special requirements, including non-standard values and sizes

C51

Round Aluminum Case

DC Link Polypropylene Capacitors

Dimensions and Ratings



Case	Terminals				Stud Mounting		
	M	Torque	F	Torque	P	S	Torque
D=55	M5 X 20	2.8N. M max	M5 X 8	3.5N. M max	22.0	M10 X 12	6.0N. M max
D=60, 65	M6 X 20	3.8N. M max	M6 X 9	4.5N. M max	28.5	M12 X 16	10.0N. M max
D=76,86	M8 X 20	8.5N. M max	M6 X 9	4.5N. M max	32.0		
D=96, 116	M8 X 20	8.5N. M max	M6 X 9	4.5N. M max	50.0	M12X16	10.0N. M max

Cap.		500 VDC				
µF	Part #	Dimension (mm)			Irms Max A	ESR (mΩ)
		D	H	P		
400	C51SC501407K***#	65	97	28	50	3.0
500	C51SC501507K***#	65	120	28	60	2.7
500	C51SC501507K***#	76	97	32	60	2.7
750	C51SC501757K***#	76	120	32	80	2.5
750	C51SC501757K***#	86	97	32	80	2.5
1000	C51SC501108K***#	86	120	32	100	2.2
1500	C51SC501158K***#	76	225	32	130	2.0
1800	C51SC501188K***#	116	120	50	150	1.8
2000	C51SC501208K***#	86	225	32	160	1.5
2400	C51SC501248K***#	96	225	45	180	1.2
3000	C51SC501308K***#	96	225	45	210	1.0
3600	C51SC501368K***#	116	225	50	280	0.8
4000	C51SC501408K***#	116	225	50	300	0.5

Cap.		800 VDC				
µF	Part #	Dimension (mm)			Irms Max A	ESR (mΩ)
		D	H	P		
430	C51SC801437K***#	76	120	32	40	4.5
550	C51SC801557K***#	86	120	32	46	4.0
800	C51SC801807K***#	76	225	32	67	3.0
1000	C51SC801108K***#	86	225	32	76	2.6



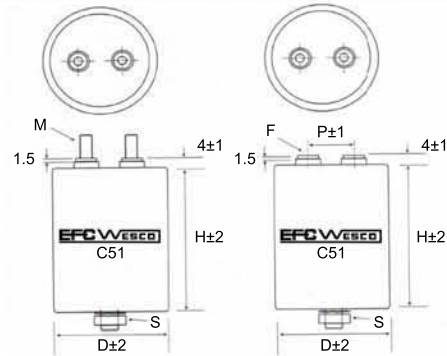
Please consult factory for special requirements, including non-standard values and sizes

C51

Round Aluminum Case

DC Link Polypropylene Capacitors

Dimensions and Ratings



Cap.		1000 VDC				
µF	Part #	Dimension (mm)			Irms Max A	ESR (mΩ)
		D	H	P		
270	C51SC102277K***#	76	120	32	37	5.0
350	C51SC102357K***#	86	120	32	43	4.3
500	C51SC102507K***#	76	225	32	63	3.3
680	C51SC102687K***#	86	225	32	73	3.0

Cap.		1200 VDC				
µF	Part #	Dimension (mm)			Irms Max A	ESR (mΩ)
		D	H	P		
200	C51SC122207K***#	76	120	32	35	5.5
250	C51SC122257K***#	86	120	32	41	4.9
370	C51SC122377K***#	76	225	32	61	3.5
470	C51SC122477K***#	86	225	32	70	3.0

Cap.		1400 VDC				
µF	Part #	Dimension (mm)			Irms Max A	ESR (mΩ)
		D	H	P		
140	C51SC142147K***#	76	120	32	33	6.5
180	C51SC142187K***#	86	120	32	38	5.5
270	C51SC142277K***#	76	225	32	58	4.5
350	C51SC142357K***#	86	225	32	66	3.5



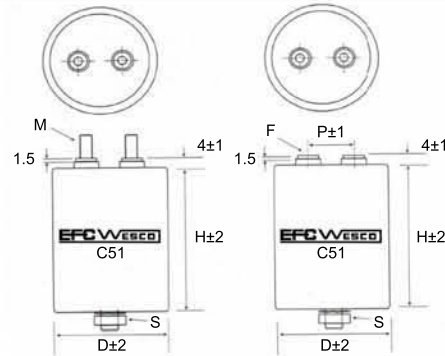
Please consult factory for special requirements, including non-standard values and sizes

C51

Round Aluminum Case

DC Link Polypropylene Capacitors

Dimensions and Ratings



Cap.	1600 VDC					
µF	Part #	Dimension (mm)			I rms Max A	ESR (mΩ)
		D	H	P		
100	C51SC162107K***#	76	120	32	30	7.5
140	C51SC162147K***#	86	120	32	36	6.0
200	C51SC162207K***#	76	225	32	54	4.5
270	C51SC162277K***#	86	225	32	64	3.8

Cap.	1800 VDC					
µF	Part #	Dimension (mm)			I rms Max A	ESR (mΩ)
		D	H	P		
80	C51SC182806K***#	76	120	32	29	8.5
110	C51SC182117K***#	86	120	32	35	6.5
160	C51SC182167K***#	76	225	32	52	4.8
200	C51SC182207K***#	86	225	32	60	4.1

Cap.	2000 VDC					
µF	Part #	Dimension (mm)			I rms Max A	ESR (mΩ)
		D	H	P		
130	C51SC202137K***#	76	225	32	36	10.5
170	C51SC202177K***#	86	225	32	42	8.5



Series C52 DC-Link Polypropylene Capacitors

Features: Flame retardant to UL94, extended metalized film, dry connection, plastic case with resin sealing, tinned copper wire, high stability, low ESR and ESL, self healing.

Applications: DC-link and filter for UPS, SMPSs, inverter, welding machine power.

Specifications

1) Operating Temperature
-40°C to 85°C.

2) Capacitance
5 μ F to 90 μ F

3) Rated Voltage
500 VDC to 1200 VDC.

4) Tolerance
 \pm 5% or \pm 10%.

5) Test Voltage Between Terminals and Case
3000V 50Hz 60s, 25°C \pm 5°C.

6) Test Voltage Between Terminals
1.5 rated DC voltage 10s 25°C \pm 5°C.

7) Dissipation Factor
0.1% max at 25°C \pm 5°C, 1 kHz

8) Insulation Resistance
5000 M Ω • μ F min, AT 100 VDC, 25°C \pm

9) Life Expectancy
200000h at rated DC voltage and 70°C.

10) Reference Standards
GB/T 17702, IEC 61071

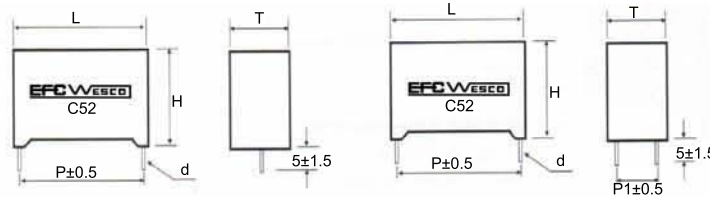
Surge Voltage Limits

Surge Voltage (VDC)	Max Duration
1.1 x Rated	30% of service period
1.15 x Rated	30 min./day
1.2 x Rated	5 min./day
1.3 x Rated	1 min./day
1.5 x Rated	100mS/day; no more than 1000 times

C52

Radial Lead Box

DC Link Polypropylene Capacitors



Dimensions and Ratings

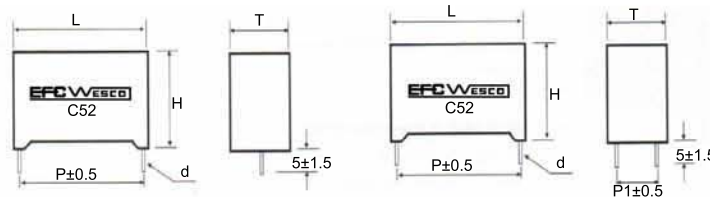
Cap.	500 VDC									
µF	Part #	Dimension (mm)						dv/dt V/µs	Irms Max A	ESR (mΩ)
		L	T	H	P	P1	d			
16	C52SB501166KL**#	42.5	24.5	27.5	37.5		1.2	20	10.0	7.0
25	C52SB501256KL**#	42.5	28.0	37.0	37.5		1.2	20	12.0	4.2
25	C52SB501256KL**#	42.5	28.0	37.0	37.5	10.0	1.2	20	14.0	4.2
35	C52SB501356KL**#	42.5	30.0	45.0	37.5		1.2	20	12.0	3.0
35	C52SB501356KL**#	42.5	30.0	45.0	37.5	20.0	1.2	20	17.0	2.5
40	C52SB501406KL**#	42.5	33.0	45.0	37.5		1.2	20	12.0	2.8
40	C52SB501406KL**#	42.5	33.0	45.0	37.5	20.0	1.2	20	19.0	2.4
50	C52SB501506KL**#	57.5	30.0	45.0	37.5		1.2	13	12.0	4.0
50	C52SB501506KL**#	57.5	30.0	45.0	52.5	20.0	1.2	13	17.0	3.5
65	C52SB501656KL**#	57.5	35.0	50.0	52.5		1.2	13	12.0	3.3
65	C52SB501656KL**#	58.5	35.0	50.0	52.5	20.0	1.2	13	20.0	2.7
90	C52SB501906KL**#	57.5	42.5	50.0	52.5	20.0	1.2	13	22.0	2.5

Cap.	700 VDC									
µF	Part #	Dimension (mm)						dv/dt V/µs	Irms Max A	ESR (mΩ)
		L	T	H	P	P1	d			
15	C52SB701156KL**#	42.5	24.5	27.5	37.5		1.2	22	10.0	8.0
22	C52SB701226KL**#	42.5	28.0	37.0	37.5		1.2	22	12.0	5.5
22	C52SB701226KL**#	42.5	28.0	37.0	37.5	10.0	1.2	22	12.0	5.2
30	C52SB701306KL**#	42.5	30.0	45.0	37.5		1.2	22	12.0	4.0
30	C52SB701306KL**#	42.5	30.0	45.0	37.5	20.0	1.2	22	15.0	3.5
35	C52SB701356KL**#	42.5	33.0	45.0	37.5		1.2	22	12.0	3.5
35	C52SB701356KL**#	42.5	33.0	45.0	37.5	20.0	1.2	20	18.0	3.1
45	C52SB701456KL**#	57.5	30.0	45.0	52.5		1.2	15	12.0	5.3
45	C52SB701456KL**#	57.5	30.0	45.0	52.5	20.0	1.2	15	20.0	3.5
55	C52SB701556KL**#	57.5	35.0	50.0	52.5		1.2	15	12.0	4.3
55	C52SB701556KL**#	57.5	35.0	50.0	52.5	20.0	1.2	15	22.0	2.8

C52

Radial Lead Box

DC Link Polypropylene Capacitors



Dimensions and Ratings

Cap.	900 VDC									
μF	Part #	Dimension (mm)						dv/dt V/μs	Irms Max A	ESR (mΩ)
		L	T	H	P	P1	d			
10	C52SB901106KL**#	42.5	24.5	27.5	37.5		1.2	30	8.0	9.5
15	C52SB901156KL**#	42.5	28.0	37.0	37.5		1.2	30	11.0	6.5
15	C52SB901156KL**#	42.5	28.0	37.0	37.5	10.0	1.2	30	11.0	6.0
20	C52SB901206KL**#	42.5	30.0	45.0	37.5		1.2	30	12.0	5.0
20	C52SB901206KL**#	42.5	30.0	45.0	37.5	20.0	1.2	30	13.0	4.5
30	C52SB901306KL**#	57.5	30.0	45.0	52.5		1.2	20	12.0	6.3
30	C52SB901306KL**#	57.5	30.0	45.0	52.5	20.0	1.2	20	16.0	5.9
40	C52SB901406KL**#	57.5	35.0	50.0	52.5		1.2	20	12.0	4.9
40	C52SB901406KL**#	57.5	35.0	50.0	52.5	20.0	1.2	20	20.0	4.5
55	C52SB901556KL**#	57.5	42.5	56.0	52.5	20.0	1.2	20	22.0	3.1

Cap.	1200 VDC									
μF	Part #	Dimension (mm)						dv/dt V/μs	Irms Max A	ESR (mΩ)
		L	T	H	P	P1	d			
5	C52SB122505KL**#	42.5	24.5	27.5	37.5		1.2	40	6.0	13.0
10	C52SB122106KL**#	42.5	28.0	37.0	37.5		1.2	40	10.0	8.0
10	C52SB122106KL**#	42.5	28.0	37.0	37.5	10.0	1.2	40	10.0	7.5
15	C52SB122156KL**#	42.5	33.0	45.0	37.5		1.2	40	12.0	5.5
15	C52SB122156KL**#	42.5	33.0	45.0	37.5		1.2	40	12.0	5.5
22	C52SB122226KL**#	57.5	30.0	45.0	52.5		1.2	27	12.0	7.0
22	C52SB122226KL**#	57.5	30.0	45.0	52.5	20.0	1.2	27	14.0	6.5
25	C52SB122256KL**#	57.5	35.0	50.0	52.5		1.2	27	12.0	6.3
25	C52SB122256KL**#	57.5	35.0	50.0	52.5	20.0	1.2	27	16.0	6.0
40	C52SB122406KL**#	57.5	42.5	56.0	52.5	20.0	1.2	27	20.0	3.5



Series C53

DC-Link Polypropylene Capacitors

Features: Flame retardant to UL94, extended metalized film, dry connection, polyester tape wrapping with resin sealing, copper nut terminals, high stability, high frequency, low inductance, self healing.

Applications: DC-link and coupling/filtering for UPS, SMPSs, inverter, welding machine power.

Specifications

1) Operating Temperature
-40°C to 85°C.

2) Capacitance
15µF to 300µF

3) Rated Voltage
600 VDC to 1200 VDC.

4) Tolerance
±5% or ±10%.

5) Test Voltage Between Terminals and Case
3000V 50Hz 60s, 25°C±5°C.

6) Test Voltage Between Terminals
1.5 rated DC voltage 10s 25°C±5°C.

7) Dissipation Factor
0.2% max at 25°C±5°C, 1kHz

8) Insulation Resistance
5000 MΩ•µF min, at 100 VDC, 25°C±5°C, 60s

9) Life Expectancy
200000h at rated DC voltage and 70°C.

10) Reference Standards
GB/T 17702, IEC 61071

Surge Voltage Limits

Surge Voltage (VDC)	Max Duration
1.1 x Rated	30% of service period
1.15 x Rated	30 min./day
1.2 x Rated	5 min./day
1.3 x Rated	1 min./day
1.5 x Rated	100mS/day; no more than 1000 times

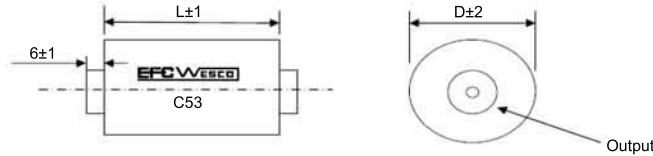


Please consult factory for special requirements, including non-standard values and sizes

C53

Tape Wrapped

DC Link Polypropylene Capacitors



Dimensions and Ratings

Cap.	600 VDC						
μF	Part #	Dimension (mm)		dv/dt V/μs	Irms Max A	ESR (mΩ)	Output
		L	D				
30	C53SC601306KF**#	40	45	45	27	1.8	M6
50	C53SC601506KF**#	50	50	32	30	2.0	M6
80	C53SC601806KF**#	50	62	32	40	1.5	M6
100	C53SC601107KF**#	60	60	22	35	2.0	M6
150	C53SC601157KF**#	60	75	22	48	1.5	M8
200	C53SC601207KF**#	110	60	10	35	3.0	M6
300	C53SC601307KF**#	110	72	10	48	2.1	M8

Cap.	800 VDC						
μF	Part #	Dimension (mm)		dv/dt V/μs	Irms Max A	ESR (mΩ)	Output
		L	D				
20	C53SC801206KF**#	40	44	65	25	2.0	M6
30	C53SC801306KF**#	50	46	40	25	2.4	M6
40	C53SC801406KF**#	50	52	40	30	2.0	M6
50	C53SC801506KF**#	50	59	40	35	1.6	M6
100	C53SC801107KF**#	60	72	30	45	1.8	M8
150	C53SC801157KF**#	110	62	14	35	3.0	M6
200	C53SC801207KF**#	110	71	14	45	2.5	M8

Cap.	1200 VDC						
μF	Part #	Dimension (mm)		dv/dt V/μs	Irms Max A	ESR (mΩ)	Output
		L	D				
15	C53SC122156KF**#	40	51	80	23	2.2	M6
25	C53SC122256KF**#	50	54	55	25	2.4	M6
40	C53SC122406KF**#	50	69	55	35	1.8	M6
50	C53SC122506KF**#	60	69	40	33	2.3	M6
80	C53SC122806KF**#	60	86	40	45	1.8	M8
100	C53SC122107KF**#	110	66	20	30	4.0	M6
150	C53SC122157KF**#	110	81	20	45	3.0	M8



Series C54 DC-Link Polypropylene Capacitors

Features: Flame retardant to UL94, extended metalized film, dry connection, aluminum case with resin sealing, tinned copper nut terminals, large capacity, small volume, high ripple current capability, low temperature rise, good heat dissipation, long service life.

Applications: Induction heating equipment in the DC bus bar support, smoothing filter circuit.

Specifications

1) Operating Temperature
-40°C to 85°C.

2) Capacitance
20 μ F to 45 μ F

3) Rated Voltage
800 VDC.

4) Tolerance
 \pm 5% or \pm 10%.

5) Test Voltage Between Terminals and Case
3000V 50Hz 60s, 25°C \pm 5°C.

6) Test Voltage Between Terminals
1.5 rated DC voltage 10s 25°C \pm 5°C.

7) Dissipation Factor
0.2% max at 25°C \pm 5°C, 1kHz

8) Insulation Resistance
5000 M Ω \cdot μ F min, at 100 VDC, 25°C \pm 5°C, 60s

9) Life Expectancy
200000h at rated DC voltage and 70°C.

10) Reference Standards
GB/T 17702, IEC 61071

Surge Voltage Limits

Surge Voltage (VDC)	Max Duration
1.1 x Rated	30% of service period
1.15 x Rated	30 min./day
1.2 x Rated	5 min./day
1.3 x Rated	1 min./day
1.5 x Rated	100mS/day; no more than 1000 times

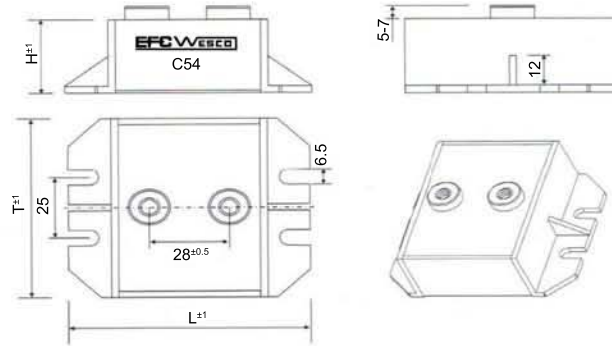


Please consult factory for special requirements, including non-standard values and sizes

C54

Rectangular Aluminum Case

DC Link Polypropylene Capacitors



Dimensions and Ratings

Cap.	800 VDC								
μF	Part #	kW	Dimension (mm)			P mm	dv/dt V/μs	I _{rms} Max A	Stud Mounting
			L	D	H				
20	C54SR801206KF**#	12~20	93	65	30	28	50	50	2XM6
30	C54SR801306KF**#	20~30	93	75	30	28	50	60	2XM6
45	C54SR801456KF**#	30~35	93	75	45	28	50	75	2XM6



Series C55 DC-Link Polypropylene Capacitors

Features: Flame retardant to UL94, extended metalized film, dry connection, plastic casing, tinned copper nut terminals, stable performance, high reliability, small volume, convenient installation.

Applications: Single IGBT switch components of small current welder < 400A

Specifications

1) Operating Temperature

-40°C to 85°C.

2) Capacitance

2 x 10 μ F; 2 x 16 μ F; 2 x 30 μ F.

3) Rated Voltage

400 VDC.

4) Tolerance

\pm 5%.

5) Test Voltage Between Terminals

650V (DC) 60s

6) Test Voltage Between Terminals and Case

2000VAC 10s.

7) Dissipation Factor

0.1% max at 25°C \pm 5°C

8) Insulation Resistance

5000 M Ω · μ F min, at 100 VDC, 25°C \pm 5°C, 60s.

9) Effective Current (Δ T<25°C)

20A; 30A; 40A.

10) Equivalent Series Resistance

<2.3m Ω ; <1.8m Ω ; <1.6m Ω .

11) Stray Inductance

\leq 20nH

12) Life Expectancy

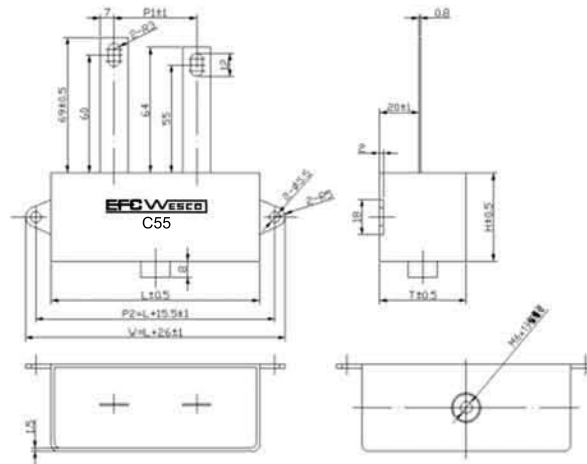
200000h at rated DC voltage and 70°C.

13) Reference Standards

GB/T 17702, IEC 61071

C55 Plastic Casing

DC Link Polypropylene Capacitors



Dimensions and Ratings

Cap.	400 VDC						
μF	Part #	Dimension (mm)			(mm)		Lead Type
		L	W	H	P1	P2	
2 x 10	C55SB4012x10KT#	76.0	31.0	35.5	26.7	91.5	Tinned Copper Lug
2 x 16	C55SB4012x16KT#	105.5	43.0	32.0	42.0	120.5	Tinned Copper Lug
2 x 30	C55SB4012x30KT#	105.5	43.5	45.0	28.0	120.5	Tinned Copper Lug



Series C56 DC-Link Polypropylene Capacitors

Features: Flame retardant to UL94, double metal and metal film inner series structure, aluminum case with resin sealing, tinned copper nut terminals, large capacity, small volume, high ripple current capability, low temperature rise, good heat dissipation, long service life.

Applications: Induction heating equipment in the DC bus bar support, smoothing filter circuit.

Specifications

1) Operating Temperature

-40°C to 85°C.

2) Capacitance

0.4 μ F to 1.1 μ F

3) Rated Voltage

3000 VDC.

4) Tolerance

\pm 5% \pm 10%

5) Withstand Voltage

1.5 rated DC voltage 60s

6) Dissipation Factor

0.1% max at 25°C \pm 5°C, 1kHz

7) Withstand Strike Current Ability

dv/dt > 30V/ μ s

8) Effective Current

30A to 80A

9) Stray Inductance

\leq 30nH

10) Life Expectancy

200000h at rated DC voltage and 70°C

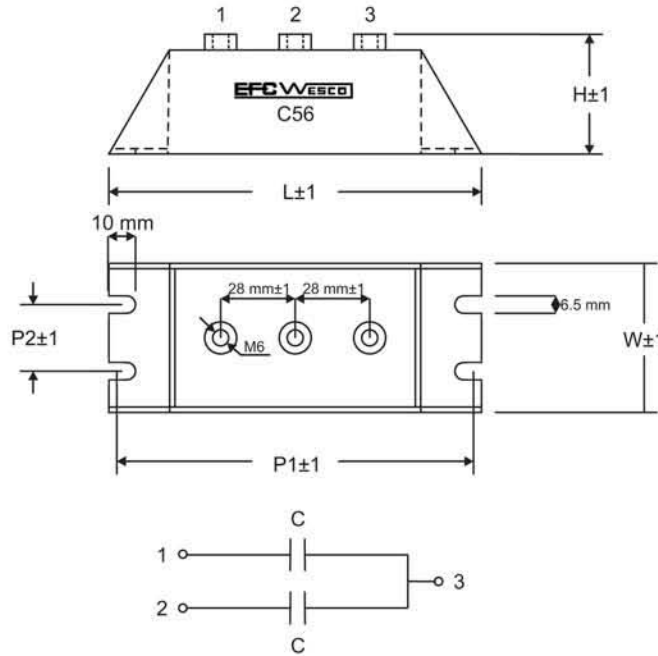
11) Reference Standards

GB/T 17702, IEC 61071

C56

Dual Capacitor Rectangular Aluminum Case

DC Link Polypropylene Capacitors



Dimensions and Ratings

Cap.	3000 VDC						
μF	Part #	Dimension (mm)					Stud Mounting
		L	W	H	P1	P2	
0.4	C56SR302404F**#	140	56	45	126	25	3xM6
0.5	C56SR302504F**#	155	65	45	141	25	3xM6
0.6	C56SR302604F**#	155	65	45	141	25	3xM6
0.7	C56SR302704F**#	175	74	45	161	25	3xM6
0.8	C56SR302804F**#	175	74	45	161	25	3xM6
0.88	C56SR302884F**#	155	65	45	141	25	3xM6
0.9	C56SR302904F**#	180	85	45	171	25	3xM6
1.0	C56SR302105F**#	175	74	45	161	25	3xM6
1.1	C56SR302115F**#	175	74	45	161	25	3xM6



Series C58 DC-Link Polypropylene Capacitors

Features: Flame retardant to UL94, extended metallized film, dry connection, round plastic shell, tinned copper nut (or bolt), high current, low inductance, high stability, self healing.

Applications: Coupling/filtering for UPS, SMPSs, inverter, welding machine power.

Specifications

1) Operating Temperature

-40°C to 85°C.

2) Capacitance

25µF to 240µF

3) Rated Voltage

700 VDC to 1800 VDC

4) Tolerance

±5% ±10%

5) Test Voltage Between Terminals

1.6 X rated voltage 10s 25°C ± 5°C.

6) Dissipation Factor

0.2% max at 25°C ± 5°C, 1 kHz.

7) Insulation Resistance

5000 MΩ*µF min, at 100 VDC, 25°C ± 5°C,

8) Life Expectancy

200000h at DC voltage and 70°C

Surge Voltage Limits

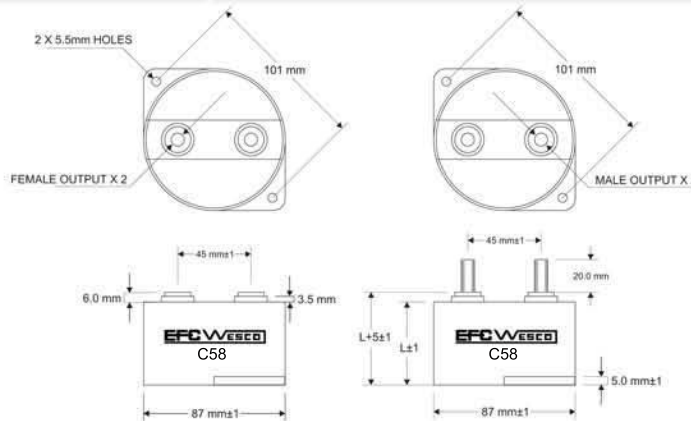
Surge Voltage (VDC)	Max Duration
1.1 x Rated	30% of service period
1.15 x Rated	30 min./day
1.2 x Rated	5 min./day
1.3 x Rated	1 min./day
1.5 x Rated	100mS/day; no more than 1000 times



Please consult factory for special requirements, including non-standard values and sizes

C58 Round Plastic Shell

DC Link Polypropylene Capacitors



Dimensions and Ratings

Cap.		700 VDC						
μF	Part #	Dimension (mm)		I _{peak} (A)	I _{rms max} (A)	ESR (mΩ)	ESL (nH)	Output
		L	D					
150	C58SB701157K***#	51	87	5300	85	0.4	< 30	M6
240	C58SB701247K***#	66	87	5600	60	1.0	< 40	M6

Cap.		900 VDC						
μF	Part #	Dimension (mm)		I _{peak} (A)	I _{rms max} (A)	ESR (mΩ)	ESL (nH)	Output
		L	D					
100	C58SB901107K***#	51	87	4500	75	0.6	< 30	M6
150	C58SB901157K***#	66	87	4400	55	1.1	< 40	M6

Cap.		1000 VDC						
μF	Part #	Dimension (mm)		I _{peak} (A)	I _{rms max} (A)	ESR (mΩ)	ESL (nH)	Output
		L	D					
80	C58SB102806K***#	51	87	4000	70	0.6	< 30	M6

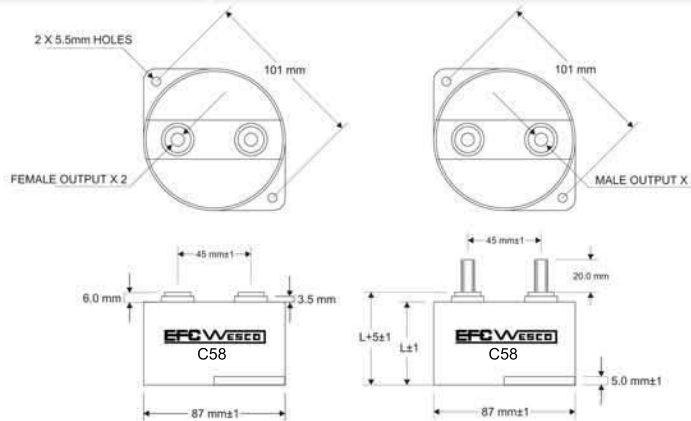
Cap.		1100 VDC						
μF	Part #	Dimension (mm)		I _{peak} (A)	I _{rms max} (A)	ESR (mΩ)	ESL (nH)	Output
		L	D					
70	C58SB112706K***#	51	87	3800	70	0.65	< 30	M6
100	C58SB112107K***#	66	87	3600	50	1.3	< 40	M6



Please consult factory for special requirements, including non-standard values and sizes

C58 Round Plastic Shell

DC Link Polypropylene Capacitors

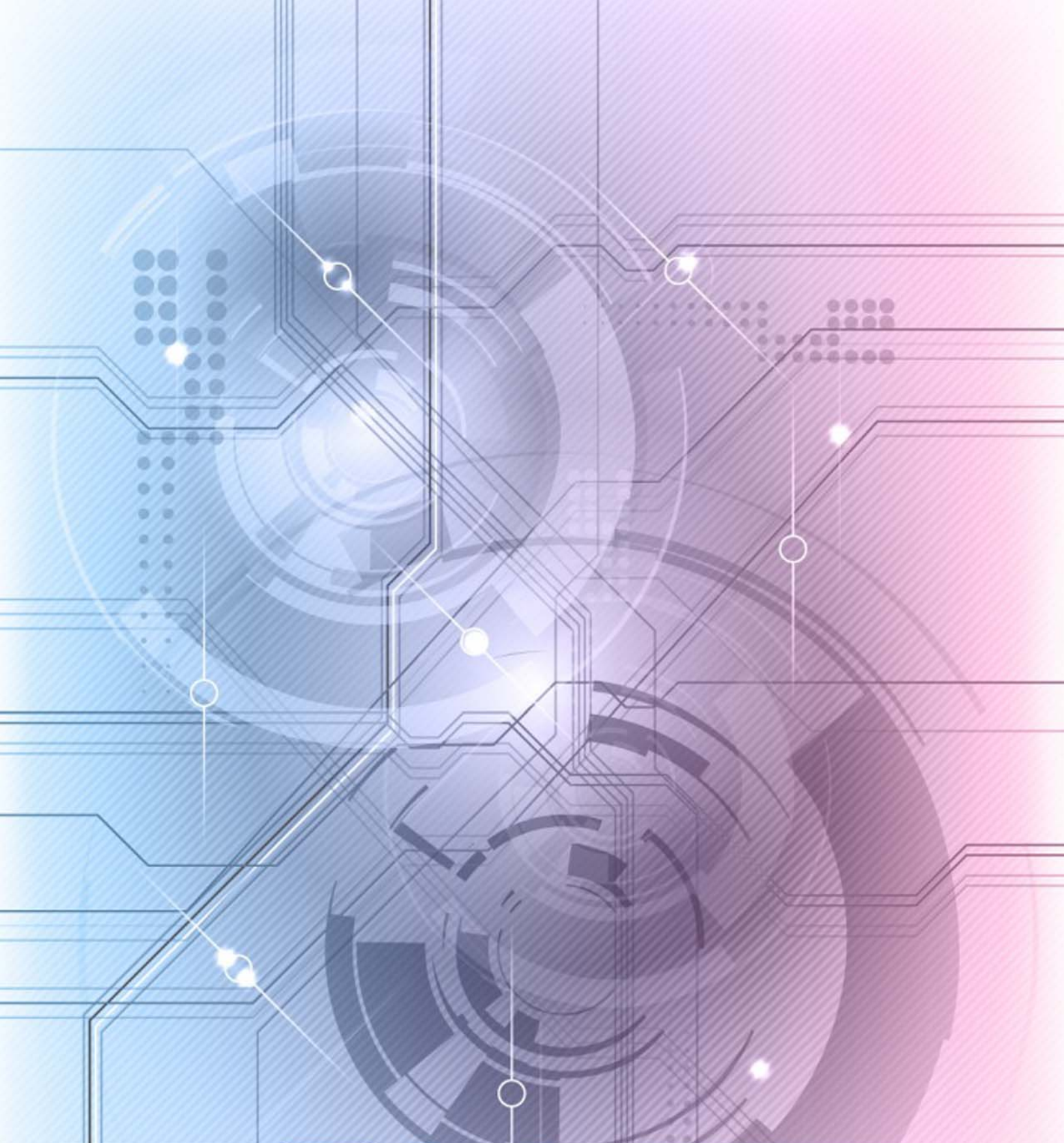


Dimensions and Ratings

Cap.	1250 VDC							
μF	Part #	Dimension (mm)		I _{peak} (A)	I _{rms} max (A)	ESR (mΩ)	ESL (nH)	Output
		L	D					
50	C58SB1252506K***#	51	87	3200	65	0.75	< 30	M6
75	C58SB1252756K***#	66	87	3100	45	1.5	< 40	M6

Cap.	1450 VDC							
μF	Part #	Dimension (mm)		I _{peak} (A)	I _{rms} max (A)	ESR (mΩ)	ESL (nH)	Output
		L	D					
40	C58SB1452406K***#	51	87	2900	60	0.8	< 30	M8
50	C58SB1452506K***#	66	87	2400	45	1.6	< 40	M6

Cap.	1800 VDC							
μF	Part #	Dimension (mm)		I _{peak} (A)	I _{rms} max (A)	ESR (mΩ)	ESL (nH)	Output
		L	D					
25	C58SB182256K***#	51	87	2300	55	1.0	< 30	M8
35	C58SB182356K***#	66	87	2100	40	2.0	< 40	M8



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