



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).

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



PC1213EFR
Rectangular Plastic Case
(Radial Leads)

Direct Mount Snubber Capacitors

Dimensions and Ratings

Cap.		850 VDC / 500 VAC							
µF	Part #	" T " mm	" W " mm	" H " mm	I _{PEAK} AMPS	I _{RMS} AMP	ESR (mΩ)	dV/dT V/µs	
						S	Max		
.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 " mm	" W " mm	" H " mm	I _{PEAK} AMPS	I _{RMS} AMP	ESR (mΩ)	dV/dT V/µs	
						S	Max		
.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



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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

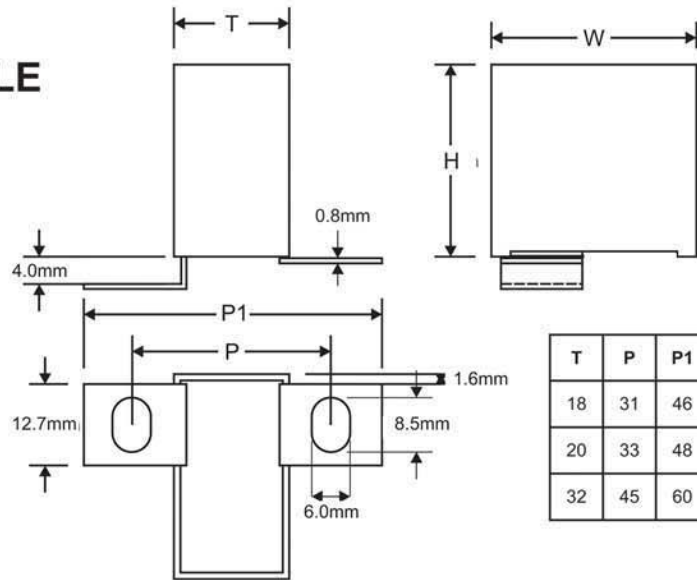


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Rectangular Plastic Case
(Radial Leads)

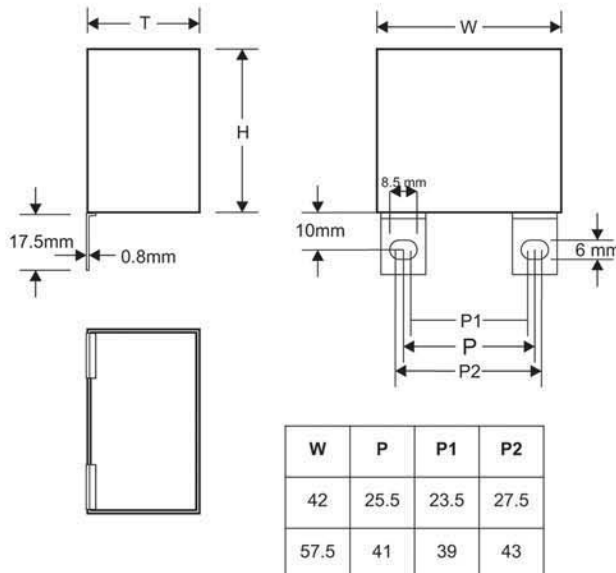
Direct Mount Snubber Capacitors

Terminal Styles

R
STYLE



S
STYLE



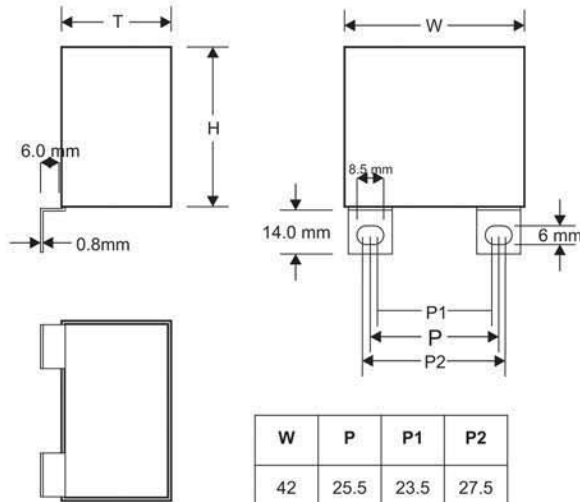


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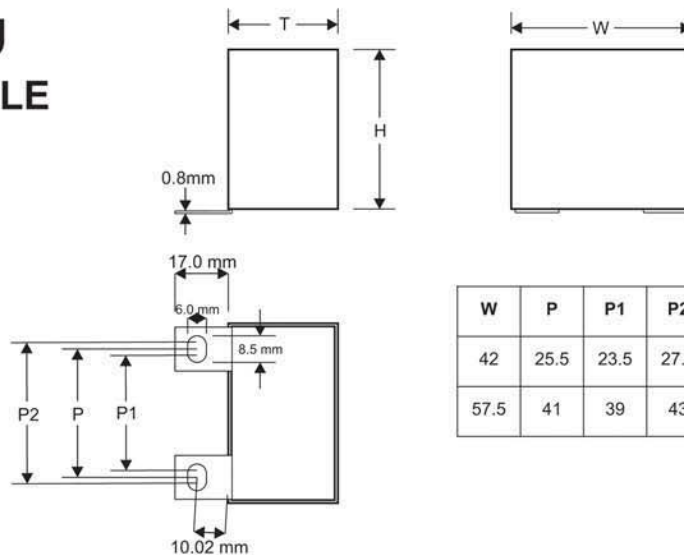
Terminal Styles

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

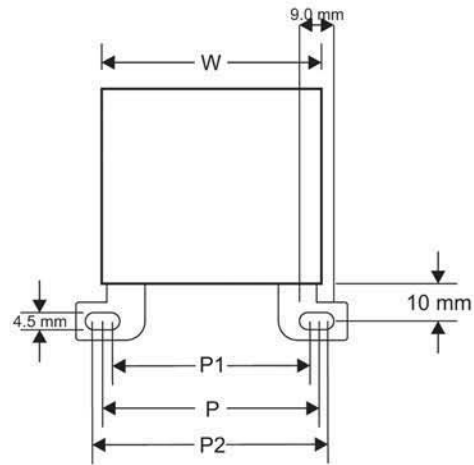
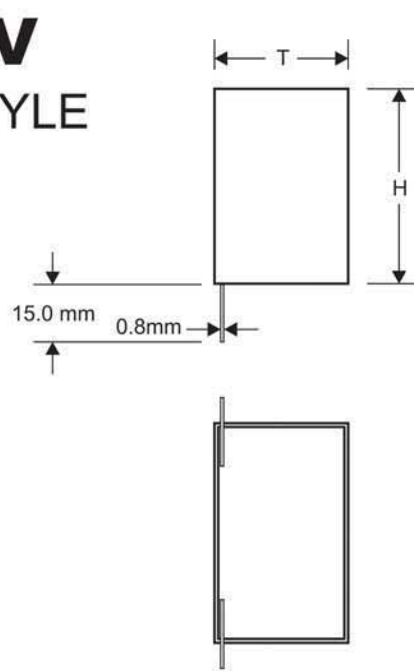


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Terminal Styles

V
 STYLE



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