

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

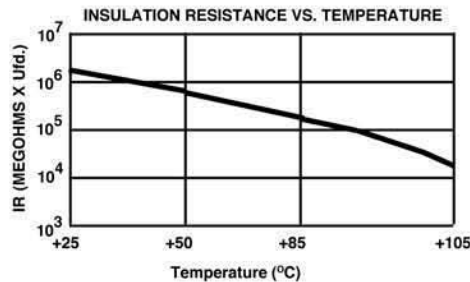
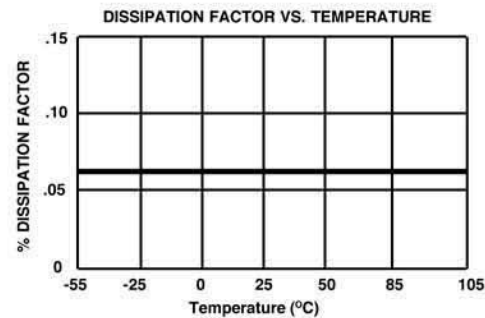
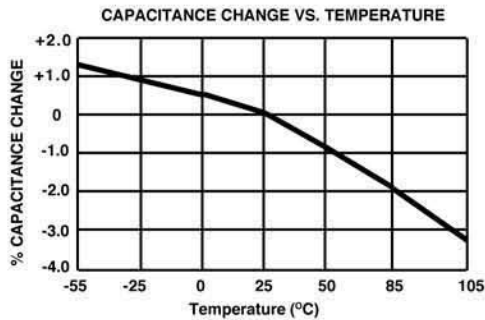
0.15µF to 30µF

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**

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**

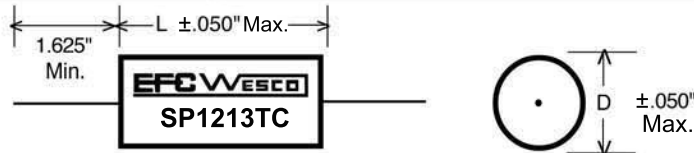
The following options are available from EFC by specifying the appropriate prefix.

- 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



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

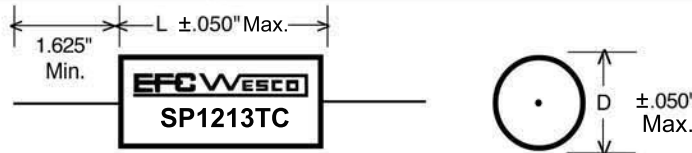
Cap.	400 VDC/250 VAC							
µF	Part #	D (in.)	L (in.)	Lead Dia.	dv/dt (V/µsec.)	PK Current (amps)	100 kHz ESR (Milliohms)	RMS Current (amps)
1.0	SP1213TC-3-1.0-4-*	.500	1.300	.040	47.0	47.0	8.2	7.0
2.0	SP1213TC-3-2.0-4-*	.700	1.300	.040	47.0	94.0	4.6	9.0
3.0	SP1213TC-3-3.0-4-*	.840	1.300	.040	47.0	141.0	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