

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

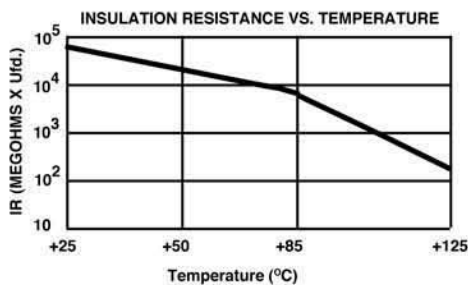
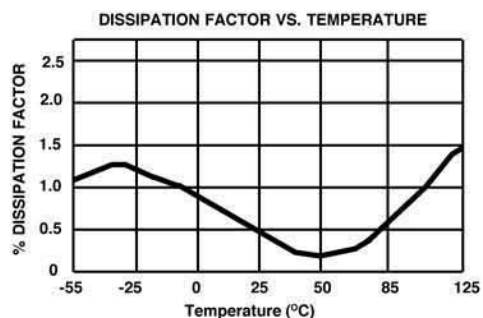
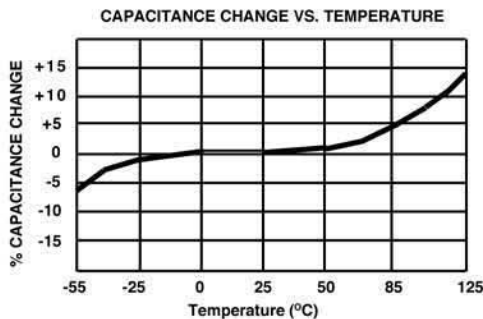
Series 1313 shall meet the requirements of MIL-STD. 202, Method 103B.

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**

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



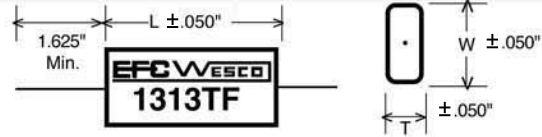
Please consult factory for special requirements, including non-standard values and sizes

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. μF	Part #	T	W	L	Cap. μF	Part #	T	W	L	Cap. μF	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



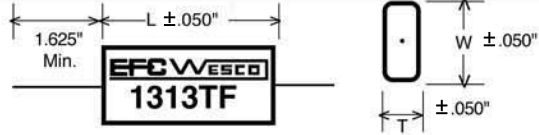
Please consult factory for special requirements, including non-standard values and sizes

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



200 VDC				
Cap. 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

400 VDC				
Cap. 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

600 VDC				
Cap. 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