

ELECTRONIC FILM CAPACITORS, INC.

Reidville Industrial Park * 41 Interstate Lane
WATERBURY, CONNECTICUT 06705

PHONE (203) 755-5629 FAX (203) 755-0659



METALLIZED POLYESTER

SERIES 1313

EFC Series 1313 are metallized polyester capacitors. This series offers the advantage of small size, self healing and low cost. Suggested applications include: medical electronics, telecommunications and high voltage power supplies. Packaging options include: wrap and fill (TF, TC), radial lead box (EFR), axial lead (EC, EF). Application options include: high voltage (HV), "AC" across the line (AC), noise suppression (RC) and switching power supply (SP).

SPECIFICATIONS

1. TEMPERATURE RANGE

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

2. CAPACITANCE

Capacitors ≤ 1.0 MFD shall be measured at 1 KHz ± 20 HZ. Capacitors >1.0 MFD shall be measured at 120 HZ. Measurements shall be taken 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 30,000 Megohm-Microfarad, 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. 202C, Method 103B.

6. DISSIPATION FACTOR

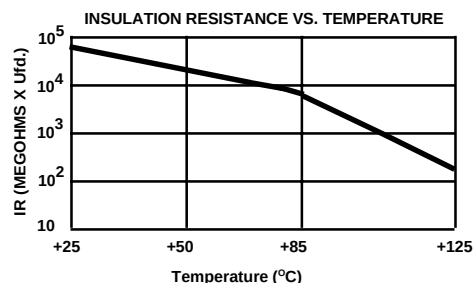
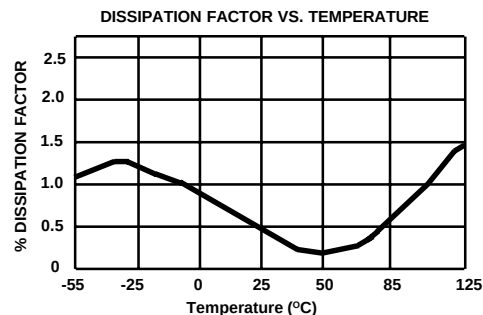
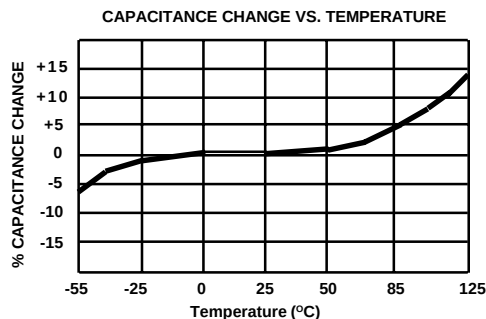
Shall be 1.0 % max. when measured as in Par. 2.

7. LIFE TEST

Will withstand the application of 150% rated voltage at +125 °C for 250 hours with not more than one failure in 12 permitted.

TYPICAL TEMPERATURE CURVES

METALLIZED POLYESTER





CATALOG NOMENCLATURE

* 1313 EFR - 3 - .1 - 1 - 5

CASE CODE

TC - WRAP & FILL - ROUND - AXIAL
TF - WRAP & FILL - FLAT - AXIAL
EC - EPOXY CASE - ROUND - AXIAL
EF - EPOXY CASE - FLAT - AXIAL
EFR - EPOXY CASE - FLAT - RADIAL

DIELECTRIC CODE

1206 - POLYPROPYLENE/FOIL
1213 - METALLIZED POLYPROPYLENE
1306 - POLYESTER/FOIL
1313 - METALLIZED POLYESTER
1606 - POLYCARBONATE/FOIL
1613 - METALLIZED POLYCARBONATE
1906 - POLYSTYRENE/FOIL

SIZE CODE

3 - STANDARD
2 - MINIATURE
1 - SUBMINIATURE
X - NON-STANDARD

FOR EFC METRIC CASES USE THE
ONE LETTER CASE CODE LISTED.

FOR EFC "EC" STYLE USE THE
TWO 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
ETC.

TOLERANCE

1 - 1%
2 - 2%
5 - 5%
ETC.

* OPTIONS

THE FOLLOWING OPTIONS ARE AVAILABLE FROM EFC BY SPECIFYING THE APPROPRIATE PREFIX.

TEMPERATURE COEFFICIENTS:

Different T.C.'s are available in both Polypropylene and Polystyrene dielectrics. T.C.'s and the appropriate prefixes are as follows:

A1206 = -150 PPM/ $^{\circ}$ C $\pm$ 30 PPM
T1206 = -270 PPM/ $^{\circ}$ C $\pm$ 30 PPM
01906 = ZERO PPM/ $^{\circ}$ C $\pm$ 50 PPM
A1906 = -80 PPM/ $^{\circ}$ C $\pm$ 30 PPM
T1906 = -120 PPM/ $^{\circ}$ C $\pm$ 30 PPM

HIGH VOLTAGE:

EFC high voltage metallized polyester capacitors are designed for use in high voltage power supplies, rectifiers and other similar circuits. Voltage ratings to 15,000 DC are common-place at EFC. Specify with the prefix **HV**.

AC CURRENT:

Specify metallized polyester and termination procedures to enable EFC to supply a small sized **AC** rated capacitor for general purpose use at 60 HZ. Specify with the prefix **AC**.

HIGH AMPERAGE AND PULSE CURRENTS:

Dual metallized carriers allow these capacitors to handle high amperage and pulsing currents. Available in both polyester and polypropylene dielectrics. Specify with the prefix **MF**. Contact the factory for an **MF** spec. sheet.

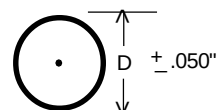
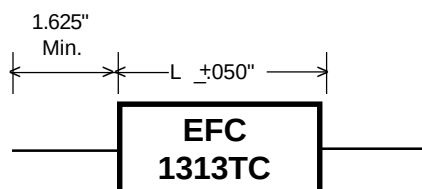
SWITCH MODE POWER SUPPLY:

Polypropylene and polyester capacitors designed for SMPS have low ESR and high current rating should be specified with the **SP** prefix.

EFC will manufacture to any non-standard value and size. Please consult factory for special requirements.

EFC

Metallized Polyester Capacitors



(All dimensions in inches)

1313TC
**Tubular
Wrap and Fill**

Lead Specs.

Tinned Copperweld

Under .250D = 24 AWG

.250 - .440D = 22 AWG

Above .440D = 20 AWG

DIMENSIONS and RATINGS

Cap.	1313TC-1 50 VDC		1313TC-2 100 VDC		1313TC-3 150 VDC		1313TC-3 200 VDC		1313TC-3 400 VDC		1313TC-3 600 VDC	
μF	D	L	D	L	D	L	D	L	D	L	D	L
.001	.180	.406	.180	.406	.180	.406	.180	.406	.180	.406	.180	.406
.0012	.180	.406	.180	.406	.180	.406	.180	.406	.180	.406	.180	.406
.0015	.180	.406	.180	.406	.180	.406	.180	.406	.180	.406	.180	.406
.0018	.180	.406	.180	.406	.180	.406	.180	.406	.180	.406	.180	.406
.0022	.180	.406	.180	.406	.180	.406	.180	.406	.180	.406	.180	.406
.0027	.180	.406	.180	.406	.180	.406	.180	.406	.180	.406	.200	.406
.0033	.180	.406	.180	.406	.180	.406	.180	.406	.180	.406	.220	.406
.0039	.180	.406	.180	.406	.180	.406	.180	.406	.180	.406	.240	.406
.0047	.180	.406	.180	.406	.180	.406	.180	.406	.180	.406	.190	.531
.0056	.180	.406	.180	.406	.180	.406	.180	.406	.180	.406	.200	.531
.0068	.180	.406	.180	.406	.180	.406	.180	.406	.180	.406	.210	.531
.0082	.180	.406	.180	.406	.180	.406	.180	.406	.180	.406	.220	.531
.01	.180	.406	.180	.406	.180	.406	.180	.406	.180	.406	.240	.531
.012	.180	.406	.180	.406	.180	.406	.180	.406	.180	.406	.260	.531
.015	.180	.406	.180	.406	.180	.406	.180	.406	.180	.406	.290	.531
.018	.180	.406	.180	.406	.180	.406	.180	.406	.200	.531	.250	.656
.022	.180	.406	.180	.406	.180	.406	.200	.406	.220	.531	.280	.656
.027	.180	.406	.180	.406	.200	.406	.220	.406	.240	.531	.310	.656
.033	.180	.406	.180	.406	.220	.406	.240	.406	.260	.531	.340	.656
.039	.180	.406	.180	.406	.230	.406	.190	.531	.280	.531	.320	.781
.047	.180	.406	.180	.406	.240	.406	.200	.531	.250	.656	.350	.781
.056	.180	.406	.200	.406	.250	.406	.210	.531	.270	.656	.380	.781
.068	.180	.406	.220	.406	.200	.531	.220	.531	.290	.656	.410	.781
.082	.180	.406	.190	.468	.220	.531	.250	.531	.320	.656	.400	.906
.1	.180	.406	.210	.468	.240	.531	.270	.531	.310	.781	.440	.906
.12	.190	.406	.220	.468	.260	.531	.290	.531	.340	.781	.480	.906
.15	.200	.406	.210	.531	.240	.656	.250	.656	.370	.781	.460	1.190
.18	.220	.406	.230	.531	.260	.656	.290	.656	.410	.781	.500	1.190
.22	.190	.468	.250	.531	.280	.656	.320	.656	.400	.906	.550	1.190
.27	.210	.468	.280	.531	.310	.656	.300	.781	.440	.906	.600	1.190
.33	.230	.468	.250	.656	.350	.656	.330	.781	.490	.906	.580	1.440
.39	.250	.468	.270	.656	.320	.781	.360	.781	.450	1.190	.640	1.440
.47	.230	.531	.290	.656	.350	.781	.400	.781	.490	1.190	.700	1.440
.56	.250	.531	.310	.656	.380	.781	.380	.906	.530	1.190	.720	1.570
.68	.270	.531	.300	.781	.380	.906	.420	.906	.580	1.190	.800	1.570
.82	.240	.656	.330	.781	.410	.906	.450	.906	.640	1.190	.800	1.820
1.0	.270	.656	.360	.781	.450	.906	.430	1.190	.620	1.440	.880	1.820
1.25	.300	.656	.400	.781	.430	1.190	.480	1.190	.690	1.440	.970	1.820
1.5	.300	.781	.390	.906	.470	1.190	.530	1.190	.760	1.440	.960	2.250
2.0	.350	.781	.440	.906	.540	1.190	.600	1.190	.790	1.690	1.100	2.250
3.0	.400	.781	.460	1.190	.580	1.440	.650	1.440	.960	1.690		
4.0	.420	.906	.530	1.190	.660	1.440	.740	1.440				
5.0	.470	.906	.520	1.440	.700	1.570	.790	1.570				
6.0	.440	1.190	.560	1.440	.770	1.570	.820	1.690				
10.0	.500	1.190	.690	1.570	.940	1.690	.970	1.940				
20.0	.700	1.440	.920	1.690	1.200	1.940						

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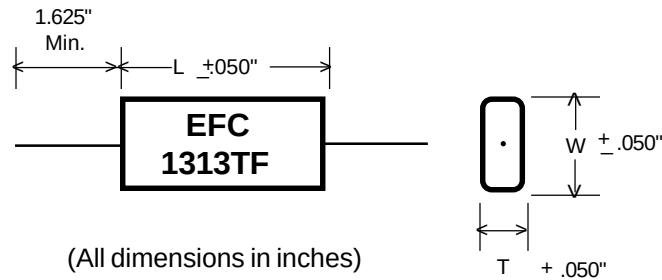
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EFC will manufacture to any non-standard value and size. Please consult factory for special requirements.



Metallized Polyester Capacitors



1313TF

**Oval
Wrap and Fill**

Lead Specs.

Tinned Copperweld

Under .190T = 24 AWG

.190 - .380T = 22 AWG

Above .380T = 20 AWG

DIMENSIONS and RATINGS

Cap.	1313TF-1 50 VDC			1313TF-2 100 VDC			1313TF-3 150 VDC			1313TF-3 200 VDC			1313TF-3 400 VDC			1313TF-3 600 VDC		
μF	T	W	L	T	W	L	T	W	L	T	W	L	T	W	L	T	W	L
.001	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406
.0012	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406
.0015	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406
.0018	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406
.0022	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406
.0027	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.140	.240	.406
.0033	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.160	.260	.406
.0039	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.180	.280	.406
.0047	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.130	.230	.531
.0056	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.140	.240	.531
.0068	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.150	.250	.531
.0082	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.140	.240	.406	.160	.260	.531
.01	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.160	.260	.406	.180	.280	.531
.012	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.180	.280	.406	.200	.300	.531
.015	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.130	.230	.531	.230	.330	.531
.018	.125	.225	.406	.125	.225	.406	.125	.225	.406	.125	.225	.406	.140	.240	.531	.190	.290	.656
.022	.125	.225	.406	.125	.225	.406	.126	.225	.406	.140	.240	.406	.160	.260	.531	.220	.320	.656
.027	.125	.225	.406	.125	.225	.406	.140	.240	.406	.160	.260	.406	.180	.280	.531	.250	.350	.656
.033	.125	.225	.406	.125	.225	.406	.160	.260	.406	.180	.280	.406	.200	.300	.531	.280	.380	.656
.039	.125	.225	.406	.125	.225	.406	.170	.270	.406	.130	.230	.531	.220	.320	.531	.240	.370	.781
.047	.125	.225	.406	.125	.225	.406	.180	.280	.406	.140	.240	.531	.190	.290	.656	.270	.400	.781
.056	.125	.225	.406	.140	.240	.406	.190	.290	.406	.150	.250	.531	.210	.310	.656	.300	.430	.781
.068	.125	.225	.406	.160	.260	.406	.140	.240	.531	.160	.260	.531	.230	.330	.656	.330	.460	.781
.082	.125	.225	.406	.130	.230	.468	.160	.260	.531	.190	.290	.531	.260	.360	.656	.320	.450	.906
.1	.125	.225	.406	.150	.250	.468	.180	.280	.531	.210	.310	.531	.230	.380	.781	.360	.490	.906
.12	.130	.230	.406	.160	.260	.468	.200	.300	.531	.230	.330	.531	.260	.390	.781	.400	.530	.906
.15	.140	.240	.406	.150	.250	.531	.180	.280	.656	.190	.290	.656	.290	.420	.781	.350	.520	1.190
.18	.160	.260	.406	.170	.270	.531	.200	.300	.656	.230	.330	.656	.330	.460	.781	.390	.560	1.190
.22	.130	.230	.468	.190	.290	.531	.220	.320	.656	.260	.360	.656	.320	.450	.906	.440	.610	1.190
.27	.150	.250	.468	.220	.320	.531	.250	.350	.656	.220	.350	.781	.360	.490	.906	.490	.660	1.190
.33	.170	.270	.468	.190	.290	.656	.290	.390	.656	.250	.380	.781	.410	.540	.906	.470	.640	1.440
.39	.190	.290	.468	.210	.310	.656	.240	.370	.781	.280	.410	.781	.340	.510	1.190	.530	.700	1.440
.47	.170	.270	.531	.230	.330	.656	.270	.400	.781	.320	.450	.781	.380	.550	1.190	.590	.760	1.440
.56	.190	.290	.531	.250	.350	.656	.300	.430	.781	.320	.450	.906	.420	.590	1.190	.610	.780	1.570
.68	.210	.310	.531	.220	.350	.781	.300	.430	.906	.340	.470	.906	.470	.640	1.190	.690	.860	1.570
.82	.180	.280	.656	.250	.380	.781	.330	.460	.906	.370	.500	.906	.530	.700	1.190	.670	.870	1.820
1.0	.210	.310	.656	.280	.410	.781	.370	.500	.906	.320	.490	1.190	.510	.680	1.440	.750	.950	1.820
1.25	.240	.340	.656	.320	.450	.781	.320	.490	1.190	.370	.540	1.190	.580	.750	1.440	.840	1.040	1.820
1.5	.220	.350	.781	.310	.440	.906	.360	.530	1.190	.420	.590	1.190	.650	.820	1.440	.830	1.030	2.250
2.0	.270	.400	.781	.360	.490	.906	.430	.600	1.190	.490	.660	1.190	.660	.860	1.690	.990	1.190	2.250
3.0	.320	.450	.781	.350	.520	1.190	.470	.640	1.440	.540	.710	1.440	.830	1.030	1.690			
4.0	.340	.470	.906	.420	.590	1.190	.550	.720	1.440	.630	.800	1.440						
5.0	.390	.520	.906	.410	.580	1.440	.590	.760	1.570	.680	.850	1.570						
6.0	.330	.500	1.190	.450	.620	1.440	.660	.830	1.570	.690	.890	1.690						
10.0	.450	.620	1.190	.580	.750	1.570	.810	1.010	1.690	.840	1.040	1.940						
20.0	.590	.760	1.440	.790	.990	1.690	1.070	1.270	1.940									

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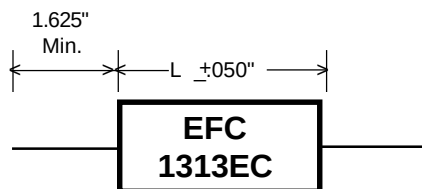
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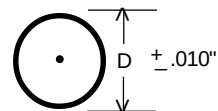
EFC will manufacture to any non-standard value and size. Please consult factory for special requirements.

EFC

Metallized Polyester Capacitors



(All dimensions in inches)

**1313EC**
**Epoxy case
(Axial Leads)**
Lead Specs.

Tinned Copperweld

Under .250D = 24 AWG

.250 - .440D = 22 AWG

Above .440D = 20 AWG

DIMENSIONS and RATINGS

Cap.	1313EC 50 VDC		1313EC 100 VDC		1313EC 150 VDC		1313EC 200 VDC		1313EC 400 VDC			
μF	D	L	D	L	D	L	D	L	D	L		
.001	1	A	1	A	1	A	1	A	1	A		
.0012	1	A	1	A	1	A	1	A	1	A		
.0015	1	A	1	A	1	A	1	A	1	A		
.0018	1	A	1	A	1	A	1	A	1	A		
.0022	1	A	1	A	1	A	1	A	1	A		
.0027	1	A	1	A	1	A	1	A	1	A		
.0033	1	A	1	A	1	A	1	A	1	A		
.0039	1	A	1	A	1	A	1	A	1	A		
.0047	1	A	1	A	1	A	1	A	1	A		
.0056	1	A	1	A	1	A	1	A	1	A		
.0068	1	A	1	A	1	A	1	A	2	A		
.0082	1	A	1	A	1	A	1	A	2	A		
.01	1	A	1	A	1	A	1	A	2	A		
.012	1	A	1	A	1	A	1	A	3	A		
.015	1	A	1	A	1	A	1	A	2	B		
.018	1	A	1	A	1	A	2	A	2	B		
.022	1	A	1	A	1	A	2	A	2	B		
.027	1	A	1	A	2	A	2	A	3	B		
.033	1	A	1	A	2	A	3	A	2	C		
.039	1	A	1	A	3	A	1	B	3	C		
.047	1	A	2	A	3	A	2	B	3	C		
.056	1	A	2	A	2	B	2	B	4	C		
.068	1	A	2	A	2	B	3	B	4	C		
.082	1	A	3	A	2	B	3	B	4	D		
.1	1	A	1	B	3	B	2	C	4	D		
.12	1	A	2	B	2	C	3	C	5	D		
.15	2	A	2	B	3	C	4	C	5	D		
.18	3	A	3	B	3	C	4	C	5	E		
.22	1	B	3	B	4	C	4	D	6	E		
.27	2	B	2	C	4	C	4	D	7	E		
.33	2	B	3	C	4	D	5	D	7	E		
.39	3	B	4	C	5	D	5	D	7	F		
.47	2	C	4	C	5	D	5	E	7	F		
.56	3	C	4	D	5	D	6	E				
.68	3	C	4	D	5	E	6	E				
.82	4	C	5	D	6	E	7	E				
1.0	4	C	5	D	7	E	6	F				
1.2	4	D	5	E	7	E	7	F				
1.5	4	D	6	E	7	F						

DIAMETER

1 = .187 5 = .375
 2 = .225 6 = .437
 3 = .250 7 = .500
 4 = .312

SIZE CODE**LENGTH**

A = .375 D = .750
 B = .500 E = .875
 C = .625 F = 1.190

ELECTRONIC FILM CAPACITORS, INC.

Reidville Industrial Park * 41 Interstate Lane * WATERBURY, CONNECTICUT 06705

Phone (203) 755-5629

FAX (203) 755-0659

EFC will manufacture to any non-standard value and size. Please consult factory for special requirements.



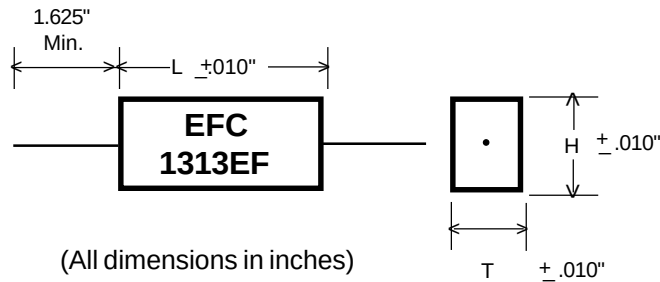
1313EF

**Epoxy Case
(Axial Leads)**

Lead Specs.

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

**Metallized
Polyester
Capacitors**



DIMENSIONS and RATINGS

Cap.	1313EF-1 50 VDC			1313EF-2 100 VDC			1313EF-3 200 VDC			1313EF-3 400 VDC			1313EF-3 600 VDC					
μF	T	H	L	T	H	L	T	H	L	T	H	L	T	H	L			
.001	.160	.240	.420	.160	.240	.420	.160	.240	.420	.170	.290	.420	.170	.290	.570			
.0012	.160	.240	.420	.160	.240	.420	.160	.240	.420	.170	.290	.420	.170	.290	.570			
.0015	.160	.240	.420	.160	.240	.420	.160	.240	.420	.170	.290	.420	.170	.290	.570			
.0018	.160	.240	.420	.160	.240	.420	.160	.240	.420	.170	.290	.420	.170	.290	.570			
.0022	.160	.240	.420	.160	.240	.420	.160	.240	.420	.170	.290	.420	.170	.290	.570			
.0027	.160	.240	.420	.160	.240	.420	.160	.240	.420	.170	.290	.420	.170	.290	.570			
.0033	.160	.240	.420	.160	.240	.420	.160	.240	.420	.170	.290	.420	.170	.290	.570			
.0039	.160	.240	.420	.160	.240	.420	.160	.240	.420	.170	.290	.420	.170	.290	.570			
.0047	.160	.240	.420	.160	.240	.420	.160	.240	.420	.170	.290	.420	.170	.290	.570			
.0056	.160	.240	.420	.160	.240	.420	.160	.240	.420	.170	.290	.420	.170	.290	.570			
.0068	.160	.240	.420	.160	.240	.420	.160	.240	.420	.170	.290	.420	.170	.290	.570			
.0082	.160	.240	.420	.160	.240	.420	.160	.240	.420	.170	.290	.420	.170	.290	.570			
.01	.160	.240	.420	.160	.240	.420	.160	.240	.420	.170	.290	.420	.170	.290	.570			
.012	.160	.240	.420	.160	.240	.420	.160	.240	.420	.170	.290	.420	.170	.290	.570			
.015	.160	.240	.420	.160	.240	.420	.160	.240	.420	.170	.290	.420	.170	.290	.570			
.018	.160	.240	.420	.160	.240	.420	.170	.290	.420	.170	.290	.570	.170	.290	.570			
.022	.160	.240	.420	.160	.240	.420	.170	.290	.420	.170	.290	.570	.170	.290	.570			
.027	.160	.240	.420	.160	.240	.420	.170	.290	.420	.170	.290	.570	.290	.420	.570			
.033	.160	.240	.420	.160	.240	.420	.170	.290	.420	.170	.290	.570	.290	.420	.570			
.039	.160	.240	.420	.170	.290	.420	.170	.290	.570	.230	.360	.550	.290	.420	.670			
.047	.160	.240	.420	.170	.290	.420	.170	.290	.570	.230	.360	.550	.290	.420	.670			
.056	.160	.240	.420	.170	.290	.420	.170	.290	.570	.230	.360	.550	.290	.420	.670			
.068	.170	.290	.420	.170	.290	.420	.170	.290	.570	.230	.360	.550	.290	.420	.820			
.082	.170	.290	.420	.170	.290	.420	.230	.360	.550	.290	.420	.570	.290	.420	.820			
.1	.170	.290	.420	.170	.290	.420	.230	.360	.550	.290	.420	.570	.290	.420	.820			
.12	.170	.290	.420	.170	.290	.570	.290	.420	.570	.290	.420	.670	.390	.540	.820			
.15	.170	.290	.420	.170	.290	.570	.290	.420	.570	.290	.420	.670	.390	.540	.820			
.18	.170	.290	.570	.170	.290	.570	.290	.420	.570	.290	.420	.820	.390	.540	1.040			
.22	.170	.290	.570	.170	.290	.570	.290	.420	.670	.290	.420	.820	.390	.540	1.240			
.27	.170	.290	.570	.230	.360	.550	.290	.420	.820	.390	.540	.820	.390	.540	1.240			
.33	.170	.290	.550	.230	.360	.550	.290	.420	.820	.390	.540	.820	.390	.540	1.240			
.39	.230	.360	.550	.290	.420	.570	.290	.540	.820	.390	.540	1.040	.560	.720	1.240			
.47	.230	.360	.550	.290	.420	.570	.290	.540	.820	.390	.540	1.040	.560	.720	1.240			
.56	.290	.420	.570	.290	.420	.570	.290	.540	.820	.390	.540	1.240	.560	.720	1.240			
.68	.290	.420	.570	.290	.420	.670	.390	.540	1.040	.390	.540	1.240	.560	.720	1.500			
.82	.290	.420	.570	.290	.420	.820	.390	.540	1.040	.390	.540	1.240						
1.0	.290	.420	.670	.290	.420	.820	.390	.540	1.240	.560	.720	1.240						
1.25	.290	.420	.820	.390	.540	.820	.390	.540	1.240	.560	.720	1.500						
1.5	.290	.420	.820	.390	.540	.820	.390	.540	1.240	.560	.720	1.500						
2.0	.390	.540	.820	.390	.540	1.240	.560	.720	1.500									
3.0	.390	.540	1.040	.560	.720	1.240												
4.0	.390	.540	1.040	.560	.720	1.240												
5.0	.560	.720	1.240	.560	.720	1.500												

ELECTRONIC FILM CAPACITORS, INC.

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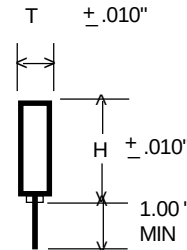
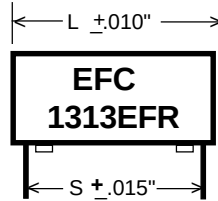
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Metallized Polyester Capacitors



1313EFR

Epoxy Case (Radial Leads)

Lead Specs. - Tinned Copperweld

L	S	AWG
.420	.30	22
.550	.40	22
.670	.50	22
.820	.60	22
1.04	.80	22
1.24	1.10	20
1.75	1.60	20

(All dimensions in inches)

DIMENSIONS and RATINGS

Cap.	1313EFR-1 50 VDC			1313EFR-2 100 VDC			1313EFR-3 200 VDC			1313EFR-3 400 VDC			1313EFR-3 600 VDC			
μF	T	L	H	T	L	H	T	L	H	T	L	H	T	L	H	
.001	.160	.420	.330	.160	.420	.330	.160	.420	.330	.180	.420	.330	.180	.550	.330	
.0012	.160	.420	.330	.160	.420	.330	.160	.420	.330	.180	.420	.330	.180	.550	.330	
.0015	.160	.420	.330	.160	.420	.330	.160	.420	.330	.180	.420	.330	.180	.550	.330	
.0018	.160	.420	.330	.160	.420	.330	.160	.420	.330	.180	.420	.330	.180	.550	.330	
.0022	.160	.420	.330	.160	.420	.330	.160	.420	.330	.180	.420	.330	.180	.550	.330	
.0027	.160	.420	.330	.160	.420	.330	.160	.420	.330	.180	.420	.330	.180	.550	.330	
.0033	.160	.420	.330	.160	.420	.330	.160	.420	.330	.180	.420	.330	.180	.550	.330	
.0039	.160	.420	.330	.160	.420	.330	.160	.420	.330	.180	.420	.330	.180	.550	.330	
.0047	.160	.420	.330	.160	.420	.330	.160	.420	.330	.180	.420	.330	.180	.550	.330	
.0056	.160	.420	.330	.160	.420	.330	.160	.420	.330	.180	.420	.330	.180	.550	.330	
.0068	.160	.420	.330	.160	.420	.330	.160	.420	.330	.180	.420	.330	.180	.550	.330	
.0082	.160	.420	.330	.160	.420	.330	.160	.420	.330	.180	.420	.330	.180	.550	.330	
.01	.160	.420	.330	.160	.420	.330	.160	.420	.330	.180	.420	.330	.180	.550	.330	
.012	.160	.420	.330	.160	.420	.330	.160	.420	.330	.180	.420	.330	.180	.550	.330	
.015	.160	.420	.330	.160	.420	.330	.160	.420	.330	.180	.420	.330	.180	.550	.330	
.018	.160	.420	.330	.160	.420	.330	.160	.420	.330	.180	.420	.330	.180	.550	.330	
.022	.160	.420	.330	.160	.420	.330	.180	.420	.330	.180	.550	.330	.240	.550	.380	
.027	.160	.420	.330	.160	.420	.330	.180	.420	.330	.180	.550	.330	.240	.550	.380	
.033	.160	.420	.330	.160	.420	.330	.180	.420	.330	.180	.550	.330	.300	.550	.430	
.039	.160	.420	.330	.180	.420	.330	.180	.550	.330	.240	.550	.380	.300	.670	.430	
.047	.160	.420	.330	.180	.420	.330	.180	.550	.330	.240	.550	.380	.300	.670	.430	
.056	.160	.420	.330	.180	.420	.330	.180	.550	.330	.240	.550	.380	.300	.670	.430	
.068	.180	.420	.330	.180	.420	.330	.180	.420	.330	.240	.550	.380	.300	.820	.430	
.082	.180	.420	.330	.180	.420	.330	.240	.550	.380	.300	.550	.430	.300	.820	.430	
.1	.180	.420	.330	.180	.420	.330	.240	.550	.380	.300	.670	.430	.300	.820	.430	
.12	.180	.420	.330	.180	.550	.330	.330	.570	.430	.300	.670	.430	.400	.820	.560	
.15	.180	.420	.330	.180	.550	.330	.300	.570	.430	.300	.670	.430	.400	.820	.560	
.18	.180	.550	.330	.180	.550	.330	.300	.570	.430	.300	.820	.430	.400	1.040	.560	
.22	.180	.550	.330	.180	.550	.330	.300	.670	.430	.300	.820	.430	.440	1.240	.560	
.27	.180	.550	.330	.240	.550	.380	.300	.820	.430	.300	.820	.430	.400	1.240	.560	
.33	.180	.550	.330	.240	.550	.380	.300	.820	.430	.400	.820	.560	.400	1.240	.560	
.39	.240	.550	.380	.300	.550	.430	.300	.820	.430	.400	1.040	.560	.400	1.240	.560	
.47	.240	.550	.380	.300	.550	.430	.400	.820	.560	.400	1.040	.560	.400	1.240	.560	
.56	.300	.550	.430	.300	.550	.430	.400	.820	.560	.570	1.240	.730	.570	1.240	.730	
.68	.300	.550	.430	.300	.670	.430	.400	1.040	.560	.570	1.240	.730	.570	1.240	.730	
.82	.300	.550	.430	.300	.820	.430	.400	1.040	.560	.570	1.240	.730	.570	1.750	.730	
1.0	.300	.670	.430	.300	.820	.430	.400	1.240	.560	.570	1.240	.730				
1.25	.300	.820	.430	.400	.820	.560	.400	1.240	.560	.570	1.240	.730				
1.5	.300	.820	.430	.400	.820	.560	.400	1.240	.560	.570	1.240	.730				
2.0	.400	1.040	.560	.400	1.240	.560	.570	1.500	.730	.570	1.750	.730				
3.0	.400	1.240	.560	.400	1.240	.560	.570	1.750	.730							
4.0	.400	1.240	.560	.570	1.240	.730										
5.0	.400	1.240	.560	.570	1.240	.730										
6.0	.570	1.240	.730	.570	1.240	.730										
10.0	.570	1.750	.730	.570	1.750	.730										

ELECTRONIC FILM CAPACITORS, INC.

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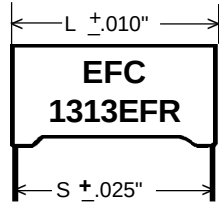
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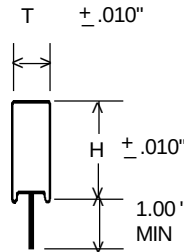
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Metallized Polyester Capacitors



(All dimensions in inches)



1313EFR

**Epoxy Case
(Radial Leads)**

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

DIMENSIONS and RATINGS

Cap. μ F	63/40 VDC/VAC	160/100 VDC/VAC	250/160 VDC/VAC	400/220 VDC/VAC	630/250 VDC/VAC	CASE SIZE	L $\frac{\text{mm}}{\text{in.}}$	T $\frac{\text{mm}}{\text{in.}}$	H $\frac{\text{mm}}{\text{in.}}$	S $\frac{\text{mm}}{\text{in.}}$
.001	B	B	B	B	C	B	$\frac{10.5}{.413}$	$\frac{4}{.157}$	$\frac{9}{.354}$	$\frac{7.5}{.295}$
.0012	B	B	B	B	C	C	$\frac{13}{.512}$	$\frac{4}{.157}$	$\frac{9}{.354}$	$\frac{10}{.394}$
.0015	B	B	B	B	C	D	$\frac{13}{.512}$	$\frac{5}{.197}$	$\frac{11}{.433}$	$\frac{10}{.394}$
.0018	B	B	B	B	C	E	$\frac{13}{.512}$	$\frac{6}{.236}$	$\frac{12}{.472}$	$\frac{10}{.394}$
.0022	B	B	B	B	C	F	$\frac{18}{.709}$	$\frac{5}{.197}$	$\frac{11}{.433}$	$\frac{15}{.591}$
.0027	B	B	B	B	C	G	$\frac{18}{.709}$	$\frac{6}{.236}$	$\frac{12}{.472}$	$\frac{15}{.591}$
.0033	B	B	B	B	C	H	$\frac{18}{.709}$	$\frac{7.5}{.295}$	$\frac{13.5}{.531}$	$\frac{15}{.591}$
.0039	B	B	B	B	C	J	$\frac{26.5}{1.04}$	$\frac{6}{.236}$	$\frac{15}{.591}$	$\frac{20}{.787}$
.0047	B	B	B	B	C	K	$\frac{26.5}{1.04}$	$\frac{7}{.276}$	$\frac{16}{.630}$	$\frac{20}{.787}$
.0056	B	B	B	B	C	L	$\frac{26.5}{1.04}$	$\frac{6}{.236}$	$\frac{15}{.591}$	$\frac{22.5}{.886}$
.0068	B	B	B	B	C	M	$\frac{26.5}{1.04}$	$\frac{7}{.276}$	$\frac{16}{.630}$	$\frac{22.5}{.886}$
.0082	B	B	B	B	C	N	$\frac{26.5}{1.04}$	$\frac{8.5}{.335}$	$\frac{16.3}{.642}$	$\frac{22.5}{.886}$
.01	B	B	B	B	C	O	$\frac{26.5}{1.04}$	$\frac{10}{.394}$	$\frac{19}{.748}$	$\frac{22.5}{.886}$
.012	B	B	B	B	C	P	$\frac{32}{1.26}$	$\frac{11}{.433}$	$\frac{20}{.787}$	$\frac{27.5}{1.08}$
.015	B	B	B	C	D	Q	$\frac{32}{1.26}$	$\frac{13}{.512}$	$\frac{22}{.866}$	$\frac{27.5}{1.08}$
.018	B	B	B	C	E					
.022	B	B	B	C	F					
.027	B	B	B	C	G					
.033	B	B	B	D	F					
.039	B	B	C	D	G					
.047	B	B	C	D	H					
.056	B	B	C	E	H					
.068	B	B	D	F	H					
.082	B	B	D	F	H					
.1	B	C	D	F	J/L					
.12	B	C	D	G	J/L					
.15	B	C	E	H	J/L					
.18	C	D	E	H	K/M					
.22	C	D	F	J/L	N					
.27	C	D	F	J/L	O					
.33	C	E	G	K/M	P					
.39	D	E	G	K/M	P					
.47	D	F	H	N	Q					
.56	E	G	H	O	Q					
.68	E	G	J/L	O	Q					
.82	F	H	K/M	P						
1.0	F	H	N	P						
1.2	G	H	N	Q						
1.5	G	K/M	P							
2.2	H	N	P							
3.3	K/M	O	Q							
4.7	N	P								
6.8	O									
10.0										

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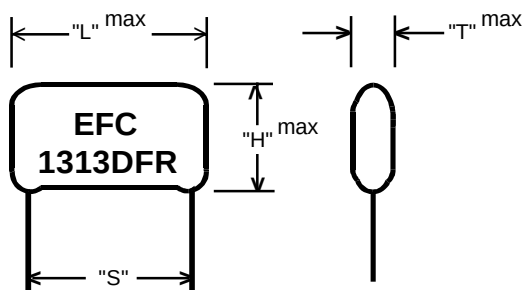
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EFC will manufacture to any non-standard value and size. Please consult factory for special requirements.



Standard Metallized Polyester Capacitors



(All dimensions in millimeters)

1313DFR

Epoxy Dipped (Radial Leads)

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	0.8

DIMENSIONS and RATINGS

Cap.	1313DFR-3 100 VDC			1313DFR-3 160 VDC			1313DFR-3 250 VDC			1313DFR-3 400 VDC			1313DFR-3 630 VDC			1313DFR-3 1000 VDC			
μF	T	H	L	T	H	L	T	H	L	T	H	L	T	H	L	T	H	L	
.001	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	12.5	
.0012	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.5	12.5	
.0015	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	9.0	12.5	
.0022	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.5	9.0	12.5	
.0027	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.5	9.0	12.5	
.0039	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.5	9.0	12.5	
.0047	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.5	9.5	12.5	
.0056	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	9.0	10.0	4.5	9.5	12.5	
.0068	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	9.0	12.5	5.0	10.0	12.5	
.0082	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.5	9.0	12.5	5.0	10.0	12.5	
.01	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.5	9.0	12.5	5.5	11.0	12.5	
.012	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.5	10.0	5.0	10.0	12.5	6.0	12.0	12.5	
.015	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.5	9.0	10.0	5.5	11.0	12.5	5.0	10.0	18.0	
.018	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.0	9.0	12.5	6.0	11.5	12.5	5.5	11.0	18.0	
.022	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.5	9.0	12.5	6.0	12.0	12.5	6.0	12.0	18.0	
.027	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.0	10.0	4.5	9.5	12.5	5.0	10.0	18.0	6.5	12.5	18.0	
.033	4.0	8.0	10.0	4.0	8.0	10.0	4.0	8.5	10.0	5.0	10.0	12.5	5.5	11.0	18.0	7.0	13.0	18.0	
.039	4.0	8.0	10.0	4.0	8.0	10.0	4.0	9.0	10.0	6.0	11.0	12.5	6.0	11.5	18.0	7.5	13.5	18.0	
.047	4.0	8.0	10.0	4.0	8.0	10.0	4.5	9.0	10.0	6.5	12.0	12.5	6.0	12.0	18.0	7.0	13.0	26.0	
.056	4.0	8.0	10.0	4.0	8.0	10.0	4.0	9.0	12.5	5.0	10.0	18.0	6.5	12.5	18.0	8.0	15.0	26.0	
.068	4.0	8.0	10.0	4.0	8.0	10.0	4.5	9.0	12.5	5.5	11.0	18.0	7.0	13.0	18.0	8.5	16.0	26.0	
.082	4.0	8.0	10.0	4.0	8.5	10.0	4.5	9.5	12.5	5.5	11.5	18.0	7.5	13.5	18.0	9.0	16.5	26.0	
.1	4.0	8.0	10.0	4.0	9.0	10.0	5.0	10.0	12.5	6.5	12.5	18.0	7.0	13.0	26.0	9.5	18.0	26.0	
.12	4.0	8.0	10.0	5.5	11.0	12.5	5.5	11.0	12.5	7.0	13.0	18.0	8.0	14.0	26.0	9.0	16.5	31.0	
.15	4.0	8.0	10.0	4.5	9.0	12.5	6.5	12.0	12.5	7.5	13.5	18.0	8.5	15.0	26.0	10.0	19.0	31.0	
.18	4.0	8.5	10.0	4.5	9.5	12.5	5.0	10.0	18.0	6.5	12.5	26.0	9.0	17.0	26.0	10.5	20.0	31.0	
.22	4.0	8.5	10.0	5.0	10.0	12.5	5.5	11.0	18.0	7.0	13.0	26.0	10.0	19.0	26.0	11.5	21.0	31.0	
.27	4.0	8.5	10.0	5.5	11.0	12.5	6.0	12.0	18.0	8.0	14.5	26.0	9.5	17.0	31.0	12.5	23.0	31.0	
.33	4.0	9.0	10.0	6.0	12.0	12.5	6.5	12.5	18.0	8.5	16.0	26.0	10.0	19.0	31.0	13.5	25.0	31.0	
.39	4.0	9.0	12.5	5.0	10.0	18.0	7.0	13.0	18.0	9.0	17.0	26.0	11.0	20.5	31.0	14.5	27.0	31.0	
.47	4.5	9.5	12.5	5.5	11.0	18.0	7.5	13.5	18.0	9.5	18.0	26.0	12.0	22.0	31.0	16.5	30.0	31.0	
.56	5.0	10.0	12.5	6.0	12.0	18.0	7.0	13.0	26.0	10.0	19.0	31.0	13.0	23.0	31.0	15.0	27.0	44.0	
.68	5.5	10.5	12.5	7.0	13.0	18.0	8.0	14.0	26.0	10.5	20.0	31.0	13.5	25.0	31.0	16.5	30.0	44.0	
.82	6.0	11.5	12.5	7.5	13.5	18.0	8.5	15.5	26.0	11.5	22.0	31.0	14.5	27.0	31.0	17.0	32.0	44.0	
1.0	6.5	12.0	12.5	8.0	14.0	18.0	9.0	16.5	26.0	13.0	24.0	31.0	16.5	30.0	31.0	20.0	35.0	44.0	
1.2	6.0	12.0	18.0	7.5	13.5	26.0	9.5	17.0	26.0	14.0	25.5	31.0	15.0	27.0	44.0				
1.5	6.5	12.5	18.0	8.0	14.0	26.0	10.0	19.0	26.0	15.5	27.0	31.0	16.5	30.0	44.0				
1.8	7.0	13.0	18.0	8.5	15.5	26.0	9.5	17.0	31.0	16.5	30.3	31.0	18.0	33.0	44.0				
2.2	7.5	13.5	18.0	9.0	17.0	26.0	10.0	19.0	31.0	17.0	32.0	31.0	20.5	36.0	44.0				
2.7	7.0	13.0	26.0	9.5	18.0	26.0	11.5	21.0	31.0	15.5	28.0	44.0							
3.3	7.5	13.5	26.0	10.5	20.0	26.0	15.0	26.0	31.0	17.0	32.0	44.0							
3.9	8.0	14.5	26.0	10.0	19.0	31.0	13.5	25.0	31.0	18.0	33.0	44.0							
4.7	8.5	16.0	26.0	11.0	21.0	31.0	15.0	26.0	31.0	20.0	35.0	44.0							
5.6	9.0	17.0	26.0	12.0	22.0	31.0	14.5	25.0	44.0										
6.8	9.5	18.0	26.0	13.0	24.0	31.0	16.0	30.0	44.0										

EFC will manufacture to any non-standard value and size. Please consult factory for special requirements.

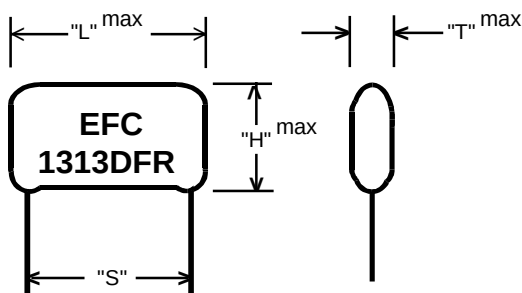
ELECTRONIC FILM CAPACITORS, INC.

Reidville Industrial Park * 41 Interstate Lane * WATERBURY, CONNECTICUT 06705

Phone (203) 755-5629 * E-Mail: efc@filmcapacitors.com * FAX (203) 755-0659



Miniature Metallized Polyester Capacitors



(All dimensions in millimeters)

1313DFR

**Epoxy Dipped
(Radial Leads)**

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

Cap.	1313DFR-2 63 VDC			1313DFR-2 100 VDC			1313DFR-2 250 VDC			1313DFR-2 400 VDC			1313DFR-2 630 VDC						
μF	T	H	L	T	H	L	T	H	L	T	H	L	T	H	L				
.001	3.5	6.5	7.5	3.5	6.5	7.5	4.0	7.0	10.0										
.0012	3.5	6.5	7.5	3.5	6.5	7.5	4.0	7.0	10.0										
.0015	3.5	6.5	7.5	3.5	6.5	7.5	4.0	7.0	10.0										
.0022	3.5	6.5	7.5	3.5	6.5	7.5	4.0	7.0	10.0										
.0027	3.5	6.5	7.5	4.0	7.0	7.5	4.0	7.5	10.0										
.0039	3.5	6.5	7.5	4.0	7.0	7.5	4.0	7.5	10.0										
.0047	3.5	6.5	7.5	4.0	7.0	7.5	4.0	7.5	10.0										
.0056	3.5	6.5	7.5	4.0	7.0	7.5	4.0	7.5	10.0										
.0068	3.5	6.5	7.5	4.0	7.0	7.5	4.0	7.5	10.0										
.0082	3.5	6.5	7.5	4.0	7.0	7.5	4.0	7.5	10.0										
.01	3.5	6.5	7.5	4.0	7.5	7.5	4.0	7.5	10.0	4.5	7.5	10.0	4.5	7.5	12.5				
.012	3.5	6.5	7.5	4.0	7.5	7.5	4.0	7.5	10.0	4.5	7.5	10.0	4.5	8.0	12.5				
.015	3.5	6.5	7.5	4.0	7.5	7.5	4.5	7.5	10.0	4.5	7.5	10.0	5.0	8.5	12.5				
.018	3.5	6.5	7.5	4.0	7.5	7.5	4.5	7.5	10.0	4.5	7.5	10.0	5.0	9.5	12.5				
.022	3.5	6.5	7.5	4.0	7.5	7.5	4.5	7.5	10.0	5.0	8.5	10.0	5.5	10.0	12.5				
.027	3.5	6.5	7.5	4.0	7.5	7.5	4.5	7.5	10.0	5.5	9.0	10.0	5.5	11.0	12.5				
.033	3.5	6.5	7.5	4.0	7.5	7.5	4.5	7.5	10.0	6.0	9.5	10.0	6.0	12.0	12.5				
.039	3.5	6.5	7.5	4.5	7.5	7.5	4.5	7.5	10.0	5.0	8.0	12.5	6.0	12.5	12.5				
.047	3.5	6.5	7.5	4.5	7.5	7.5	4.5	7.5	10.0	5.0	8.5	12.5	6.5	13.5	12.5				
.056	3.5	6.5	7.5	4.5	8.0	7.5	4.5	8.0	10.0	5.0	9.5	12.5	5.5	10.5	18.5				
.068	3.5	6.5	7.5	5.0	8.5	7.5	4.5	8.0	10.0	5.5	10.5	12.5	6.0	11.0	18.5				
.082	3.5	7.0	7.5	5.0	9.5	7.5	5.0	8.5	10.0	6.0	11.0	12.5	6.5	12.0	18.5				
.1	4.0	7.0	7.5	5.0	10.0	7.5	6.0	8.5	10.0	6.5	12.0	12.5	6.5	13.5	18.5				
.12	4.0	7.0	7.5	4.5	7.5	10.0	6.0	9.0	10.0	5.0	10.0	18.5	6.5	14.5	18.5				
.15	4.0	7.5	7.5	4.5	7.5	10.0	6.0	11.0	10.0	5.0	12.5	18.5	7.5	15.5	18.5				
.18	4.0	8.0	7.5	5.0	10.0	12.5	5.0	10.0	12.5	5.5	12.5	18.5	8.0	16.0	18.5				
.22	4.0	8.5	7.5	5.0	8.5	10.0	5.5	10.5	12.5	6.0	13.0	18.5	9.0	16.5	18.5				
.27	4.5	9.0	7.5	5.5	10.0	10.0	6.0	11.5	12.5	6.5	14.5	18.5	7.0	16.5	26.0				
.33	4.5	8.5	10.0	6.0	10.5	10.0	6.5	12.0	12.5	7.0	15.0	18.5	8.0	17.0	26.0				
.39	5.0	8.5	10.0	6.0	11.0	10.0	5.0	12.0	18.5	7.5	15.5	18.5	8.5	18.0	26.0				
.47	5.0	9.0	10.0	6.0	12.0	10.0	5.5	12.5	18.5	8.0	17.0	18.5	9.5	18.5	26.0				
.56	5.0	10.0	10.0	5.5	11.0	12.5	5.5	13.0	18.5	6.5	16.0	26.0	10.0	20.0	26.0				
.68	5.5	11.0	10.0	6.0	12.0	12.5	6.0	13.5	18.5	7.0	16.5	26.0	11.5	21.0	26.0				
.82	6.0	12.0	10.0	6.0	13.5	12.5	6.5	14.5	18.5	8.0	17.5	26.0	11.5	20.5	31.0				
1.0	6.0	12.5	10.0	7.0	14.0	12.5	7.5	15.0	18.5	8.5	19.0	26.0	12.5	22.0	31.0				
1.2	6.0	12.0	12.5	5.5	13.0	18.5	8.0	16.0	18.5	9.5	19.0	26.0	13.5	23.0	31.0				
1.5	6.5	12.5	12.5	6.0	13.5	18.5	9.0	17.0	18.5	9.5	19.0	31.0	15.5	25.0	31.0				
1.8	6.5	13.5	12.5	6.5	14.5	18.5	7.5	15.5	26.0	11.0	20.5	31.0	17.0	27.0	31.0				
2.2	5.0	10.0	18.5	7.0	15.0	18.5	8.5	16.5	26.0	12.5	22.0	31.0	19.5	29.0	31.0				
2.7	5.5	11.0	18.5	8.0	16.0	18.5	9.5	17.0	26.0	13.5	23.0	31.0							
3.3	6.0	11.5	18.5	8.5	16.5	18.5	10.5	18.0	26.0	15.0	25.0	31.0							
3.9	6.5	12.0	18.5	7.0	16.5	26.0	11.0	20.5	26.0	16.5	27.0	31.0							
4.7	7.0	13.0	18.5	7.5	17.0	26.0	12.0	21.5	26.0	19.5	30.0	31.0							
5.6	8.0	14.0	18.5	8.5	17.5	26.0	12.0	21.0	31.0										
6.8	8.5	15.0	18.5	9.0	18.5	26.0	13.0	22.5	31.0										

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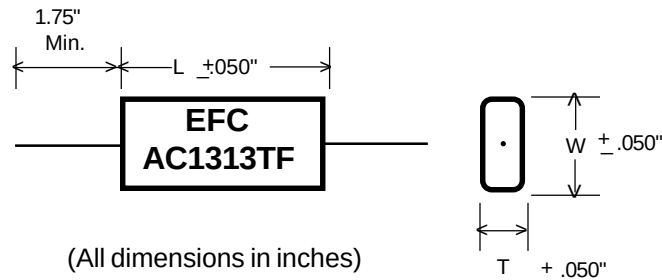
ELECTRONIC FILM CAPACITORS, INC.

Reidville Industrial Park * 41 Interstate Lane * WATERBURY, CONNECTICUT 06705

Phone (203) 755-5629 * E-Mail: efc@filmcapacitors.com * FAX (203) 755-0659



Metallized Polyester Capacitors



AC1313TF

**Oval
Wrap and Fill**

Lead Specs

Tinned Copperweld

Under .250D = 24 AWG

.250 - .440D = 22 AWG

Above .440D = 20 AWG

DIMENSIONS and RATINGS

Cap. μF	AC1313TF-3 150 VAC 60 HZ			AC1313TF-3 250 VAC 60 HZ		
	T	W	L	T	W	L
.047	.125	.250	.625	.140	.265	.625
.056	.125	.250	.625	.140	.312	.625
.068	.125	.250	.625	.140	.312	.625
.082	.125	.250	.625	.171	.375	.625
.1	.125	.250	.625	.171	.375	.625
.12	.140	.312	.625	.140	.312	1.000
.15	.156	.343	.625	.140	.312	1.000
.18	.171	.343	.625	.171	.343	1.000
.22	.171	.343	.625	.171	.343	1.000
.27	.140	.265	1.000	.203	.406	1.000
.33	.156	.343	1.000	.203	.406	1.000
.39	.140	.312	1.000	.218	.515	1.000
.47	.156	.343	1.000	.218	.515	1.000
.56	.171	.375	1.000	.265	.562	1.000
.68	.171	.375	1.000	.265	.562	1.000
.82	.187	.484	1.000	.234	.531	1.500
1.0	.187	.484	1.000	.234	.531	1.500
1.5	.234	.578	1.000	.296	.593	1.500
2.0	.281	.578	1.000	.328	.718	1.500
2.5	.296	.640	1.500	.437	.921	2.000
3.0	.328	.718	1.500	.421	.906	2.500
4.0	.312	.703	2.000	.468	1.062	2.500
5.0	.359	.750	2.000	.546	1.140	2.500
6.0	.343	.734	2.500	.578	1.265	2.500
7.0	.375	.785	2.500	.640	1.328	2.500
8.0	.375	.859	2.500	.640	1.421	2.500
10.0	.421	.908	2.500	.765	1.546	2.500
12.0	.488	1.062	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.

ELECTRONIC FILM CAPACITORS, INC.

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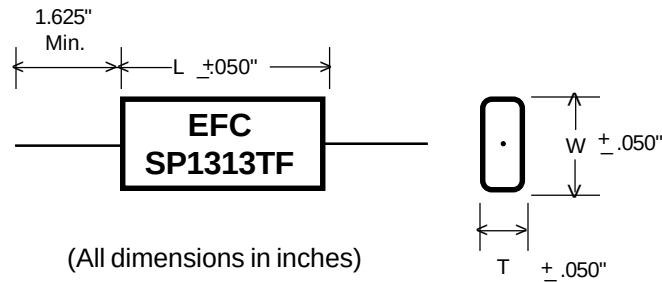
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Metallized Polyester Capacitors

**SP1313TF****Oval
Wrap and Fill**

DIMENSIONS and RATINGS

Cap.	SP1313TF-3 250 VDC			LEAD GAUGE	I_{RMS} AMPS	I_{PEAK} AMPS	100 kHz ESR (Max.)
μF	T	W	L				
1.0	.360	.560	1.125	20 AWG	2.0	7.0	41 m Ω
1.5	.450	.650	1.125	20 AWG	2.0	11.0	34 m Ω
2.2	.500	.800	1.125	20 AWG	3.0	16.0	28 m Ω
3.3	.550	.840	1.250	20 AWG	4.0	19.0	23 m Ω
4.7	.620	1.010	1.250	18 AWG	4.0	26.0	19 m Ω

Cap.	SP1313TF-3 400 VDC			LEAD GAUGE	I_{RMS} AMPS	I_{PEAK} AMPS	100 kHz ESR (Max.)
μF	T	W	L				
1.0	.550	.850	1.200	20 AWG	2.0	10.0	41 m Ω
1.5	.690	.990	1.200	18 AWG	3.0	14.0	34 m Ω
2.2	.630	1.020	1.560	18 AWG	4.0	16.0	28 m Ω
3.3	.790	1.180	1.560	18 AWG	4.0	23.0	23 m Ω
4.7	.960	1.360	1.560	18 AWG	4.0	33.0	19 m Ω

Insulation Resistance (Min.)	+25 °C	+85 °C
Megohms x Microfarads	30,000	3,000
Need not exceed (Megohms)	50,000	3,000

NOTES: EFC series SP1313TF capacitors are designed specifically for Switching Power Supply applications, where current and LOW E.S.R. values are important. Capacitance drift over time, due to humidity, temperature cycling or operation life are negligible. Electrical characteristics, such as insulation resistance (I.R.), dissipation factor and dielectric absorption are superior in this Metallized Polyester capacitor as compared to the characteristics displayed by Electrolytic Capacitors. In switching power supply applications requiring medium current, the size and weight savings of the series SP1313TF capacitors coupled with the superior electrical characteristics mentioned above make SP1313TF capacitors the ideal choice in your new or existing switching power supply.

Case is flame retardant - tape wrap construction with epoxy end seals.

Capacitance Tolerance: Standard is +/- 20%. Also available is +/- 10% and +/- 5%. The tolerance applies when measured at 1000 +/- 20 Hz at 25 °C.

Temperature Range: -55 °C to +100 °C.

Humidity Resistance: Tested as outlined in MIL-STD-202C, method 103B, condition A. After final condition IR, no less than 1/2 minimum values listed in table above. Dielectric strength to withstand test as outlined in par. 3.4. One failure allowed of 18 units tested.

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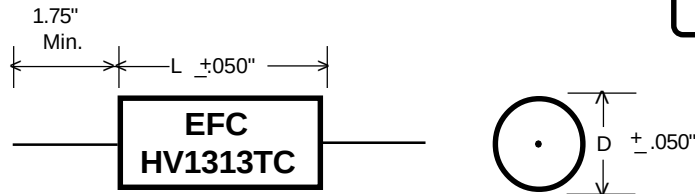
HV1313TC

**Tubular
Wrap and Fill**

Lead Specs.

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

High Voltage Metallized Polyester Capacitors



(All dimensions in inches)

DIMENSIONS and RATINGS

Cap.	HV1313TC-3 2000 VDC		HV1313TC-3 3000 VDC		HV1313TC-3 4000 VDC		HV1313TC-3 5000 VDC		HV1313TC-3 6000 VDC		HV1313TC-3 8000 VDC		HV1313TC-3 10000 VDC		HV1313TC-3 15000 VDC	
μF	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L
.001	.218	1.25	.250	1.25	.250	1.25	.250	1.312	.250	1.312	.250	1.812	.281	2.00	.453	2.375
.0012	.218	1.25	.250	1.25	.250	1.25	.250	1.312	.250	1.312	.265	1.812	.312	2.00	.468	2.375
.0015	.218	1.25	.250	1.25	.250	1.25	.250	1.312	.265	1.312	.281	1.812	.328	2.00	.531	2.375
.0018	.218	1.25	.250	1.25	.250	1.25	.250	1.312	.296	1.312	.296	1.812	.359	2.00	.578	2.375
.0022	.218	1.25	.250	1.25	.250	1.25	.250	1.312	.312	1.312	.328	1.812	.387	2.00	.658	2.375
.0027	.218	1.25	.250	1.25	.250	1.25	.282	1.312	.343	1.312	.375	1.812	.437	2.00	.703	2.375
.0033	.218	1.25	.250	1.25	.265	1.25	.296	1.312	.375	1.312	.390	1.812	.468	2.00	.562	3.00
.0039	.218	1.25	.250	1.25	.281	1.25	.312	1.312	.406	1.312	.437	1.812	.515	2.00	.609	3.00
.0047	.218	1.25	.250	1.25	.312	1.25	.343	1.312	.343	1.687	.468	1.812	.562	2.00	.656	3.00
.0056	.218	1.25	.250	1.25	.328	1.25	.375	1.312	.375	1.687	.500	1.812	.608	2.00	.716	3.00
.0068	.218	1.25	.250	1.25	.358	1.25	.406	1.312	.406	1.687	.546	1.812	.671	2.00	.781	3.00
.0082	.218	1.25	.265	1.25	.375	1.25	.343	1.687	.437	1.687	.484	2.312	.734	2.00	.859	3.00
.01	.218	1.25	.286	1.25	.408	1.25	.375	1.687	.484	1.687	.531	2.312	.796	2.00	.937	3.00
.012	.234	1.25	.317	1.25	.445	1.25	.406	1.687	.531	1.687	.562	2.312	.875	2.00	1.031	3.00
.015	.250	1.25	.343	1.25	.375	1.75	.437	1.687	.578	1.687	.625	2.312	.750	2.625	1.156	3.00
.018	.265	1.25	.375	1.25	.406	1.75	.500	1.687	.531	2.062	.687	2.312	.796	2.625		
.022	.296	1.25	.406	1.25	.428	1.75	.531	1.687	.578	2.062	.750	2.312	.875	2.625		
.027	.312	1.25	.359	1.75	.484	1.75	.578	1.687	.640	2.062	.875	2.312	.968	2.625		
.033	.343	1.25	.375	1.75	.531	1.75	.531	2.062	.703	2.062	.906	2.312	1.062	2.625		
.039	.375	1.25	.437	1.75	.562	1.75	.593	2.062	.796	2.062	.843	2.812				
.047	.359	1.50	.453	1.75	.515	2.25	.625	2.062	.828	2.062	.921	2.812				
.056	.375	1.50	.468	1.75	.562	2.25	.687	2.062	.906	2.062	1.000	2.812				
.068	.406	1.50	.453	2.25	.608	2.25	.750	2.062	.875	2.437	1.125	2.812				
.082	.453	1.50	.484	2.25	.671	2.25	.734	2.437	.953	2.437	1.250	2.812				
.1	.500	1.50	.531	2.25	.734	2.25	.875	2.437	1.062	2.437	1.375	2.812				

NOTES:

1. EFC Series HV1313TC capacitors are designed for use with high voltage rectifiers, power supplies for electrostatic copiers and televisions, etc.
2. Maximum recommended operating temperature is +85 °C.

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EFC will manufacture to any non-standard value and size. Please consult factory for special requirements.