

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

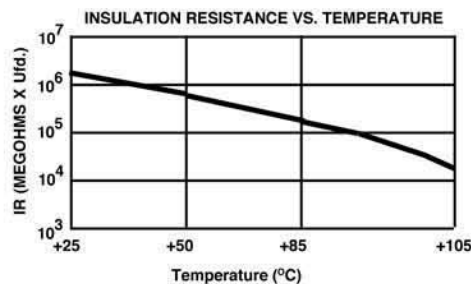
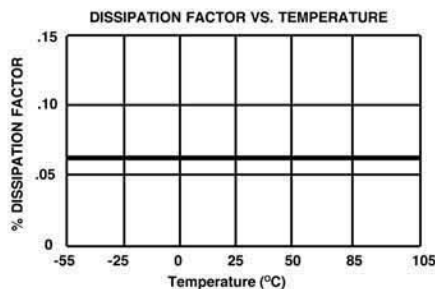
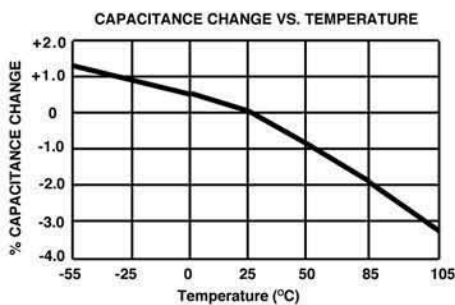
Series 1206 shall meet the requirements of MIL-STD. 202, Method 103B.

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**

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

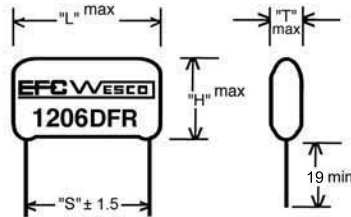
1206DFR

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



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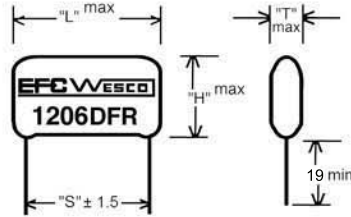
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Polypropylene and Foil Capacitors

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



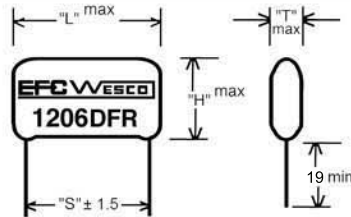
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Polypropylene and Foil Capacitors

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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