

# Series 1906 Polystyrene and Foil

**Features:** Flame retardant to UL94, high insulation resistance, very low dielectric absorption, long term stability, negative linear temperature coefficient.

**Applications:** Timing circuits, filters.

**Packaging:** Axial wrap and fill (TC), axial lead epoxy tube (EC).

**Special Options:** Different temperature coefficients (A1906, T1906).

## Specifications

### 1) Temperature Range

-55°C to 85°C at rated voltage.

### 2) Capacitance

Capacitors shall be measured at 1 KHz  $\pm$  20 HZ. Measurements shall be taken at 25°C.

### 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 500,000 Megohm-Microfarads, but need not exceed 1,000,000 Megohms.

### 5) Humidity Resistance

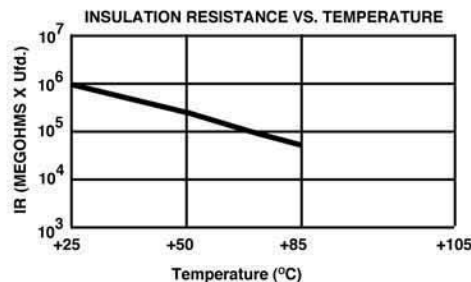
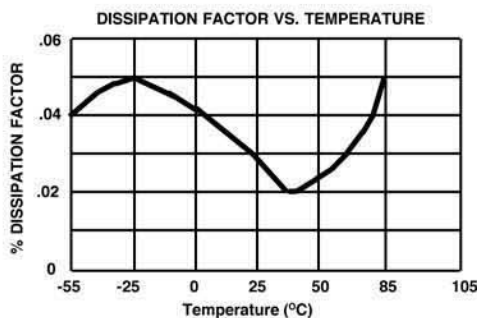
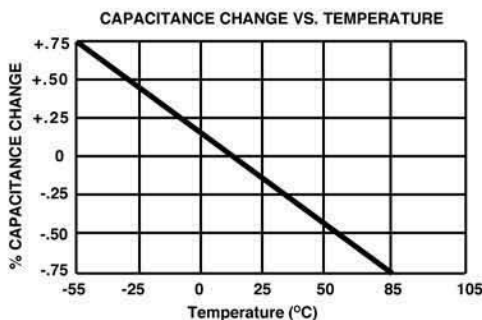
Series 1906 shall meet the requirements of MIL-STD. 202, Method 103B.

### 6) Dissipation Factor

Shall be 0.1% 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 Polystyrene 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 ( $\mu$ 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

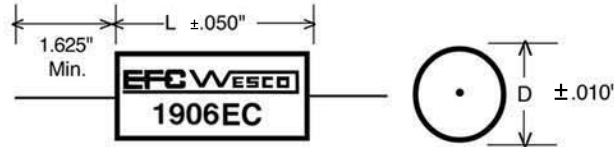


Please consult factory for special requirements, including non-standard values and sizes

**1906EC**  
Tubular Plastic Case  
(Axial Leads)

**Polystyrene and Foil Capacitors**

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



**Dimensions and Ratings**

Cap.	50 VDC			Cap.	100 VDC			Cap.	200 VDC		
μF	Part #	D	L	μF	Part #	D	L	μF	Part #	D	L
.001	1906EC-3-.001-0-*	.187	.500	.001	1906EC-3-.001-1-*	.187	.500	.001	1906EC-3-.001-2-*	.225	.375
.0012	1906EC-3-.0012-0-*	.187	.500	.0012	1906EC-3-.0012-1-*	.187	.500	.0012	1906EC-3-.0012-2-*	.225	.375
.0015	1906EC-3-.0015-0-*	.187	.500	.0015	1906EC-3-.0015-1-*	.187	.500	.0015	1906EC-3-.0015-2-*	.225	.375
.0022	1906EC-3-.0022-0-*	.225	.500	.0022	1906EC-3-.0022-1-*	.225	.500	.0022	1906EC-3-.0022-2-*	.225	.500
.0027	1906EC-3-.0027-0-*	.225	.500	.0027	1906EC-3-.0027-1-*	.225	.500	.0027	1906EC-3-.0027-2-*	.225	.500
.0039	1906EC-3-.0039-0-*	.187	.500	.0039	1906EC-3-.0039-1-*	.225	.500	.0039	1906EC-3-.0039-2-*	.225	.500
.0047	1906EC-3-.0047-0-*	.187	.500	.0047	1906EC-3-.0047-1-*	.225	.500	.0047	1906EC-3-.0047-2-*	.260	.550
.0056	1906EC-3-.0056-0-*	.225	.500	.0056	1906EC-3-.0056-1-*	.225	.500	.0056	1906EC-3-.0056-2-*	.250	.625
.0068	1906EC-3-.0068-0-*	.225	.500	.0068	1906EC-3-.0068-1-*	.225	.500	.0068	1906EC-3-.0068-2-*	.250	.625
.0082	1906EC-3-.0082-0-*	.225	.500	.0082	1906EC-3-.0082-1-*	.260	.550	.0082	1906EC-3-.0082-2-*	.250	.625
.01	1906EC-3-.01-0-*	.225	.500	.01	1906EC-3-.01-1-*	.260	.550	.01	1906EC-3-.01-2-*	.312	.625
.012	1906EC-3-.012-0-*	.260	.550	.012	1906EC-3-.012-1-*	.250	.625	.012	1906EC-3-.012-2-*	.312	.625
.015	1906EC-3-.015-0-*	.250	.625	.015	1906EC-3-.015-1-*	.250	.625	.015	1906EC-3-.015-2-*	.312	.750
.018	1906EC-3-.018-0-*	.250	.625	.018	1906EC-3-.018-1-*	.312	.625	.018	1906EC-3-.018-2-*	.312	.750
.022	1906EC-3-.022-0-*	.312	.625	.022	1906EC-3-.022-1-*	.312	.750	.022	1906EC-3-.022-2-*	.375	.750
.027	1906EC-3-.027-0-*	.312	.625	.027	1906EC-3-.027-1-*	.312	.750	.027	1906EC-3-.027-2-*	.375	.750
.033	1906EC-3-.033-0-*	.312	.625	.033	1906EC-3-.033-1-*	.312	.750	.033	1906EC-3-.033-2-*	.375	.875
.039	1906EC-3-.039-0-*	.312	.750	.039	1906EC-3-.039-1-*	.375	.750	.039	1906EC-3-.039-2-*	.437	.875
.047	1906EC-3-.047-0-*	.375	.750	.047	1906EC-3-.047-1-*	.375	.750	.047	1906EC-3-.047-2-*	.437	.875
.056	1906EC-3-.056-0-*	.375	.750	.056	1906EC-3-.056-1-*	.375	.750	.056	1906EC-3-.056-2-*	.500	.875
.068	1906EC-3-.068-0-*	.375	.750	.068	1906EC-3-.068-1-*	.375	.875	.068	1906EC-3-.068-2-*	.437	1.190
.082	1906EC-3-.082-0-*	.375	.875	.082	1906EC-3-.082-1-*	.437	.875	.082	1906EC-3-.082-2-*	.500	1.190
.1	1906EC-3-.1-0-*	.437	.875	.1	1906EC-3-.1-1-*	.437	.875				
.12	1906EC-3-.12-0-*	.437	.875	.12	1906EC-3-.12-1-*	.500	.875				
.15	1906EC-3-.15-0-*	.500	.875	.15	1906EC-3-.15-1-*	.500	1.190				
.18	1906EC-3-.18-0-*	.500	1.190	.18	1906EC-3-.18-1-*	.500	1.190				
.22	1906EC-3-.22-0-*	.500	1.190								

This dielectric is available in limited quantities. Please consult factory on all size and voltage requests.

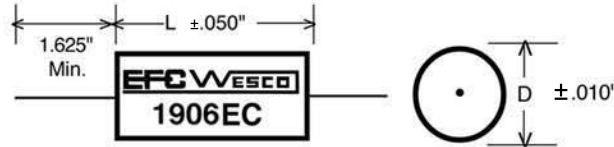
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μF	Part #	D	L	μF	Part #	D	L
.001	1906EC-3-.001-4*	.187	.500	.001	1906EC-3-.001-6*	.225	.625
.0012	1906EC-3-.0012-4*	.225	.500	.0012	1906EC-3-.0012-6*	.225	.625
.0015	1906EC-3-.0015-4*	.225	.500	.0015	1906EC-3-.0015-6*	.250	.625
.0022	1906EC-3-.0022-4*	.260	.550	.0022	1906EC-3-.0022-6*	.312	.625
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.0047	1906EC-3-.0047-4*	.250	.625	.0047	1906EC-3-.0047-6*	.375	.750
.0056	1906EC-3-.0056-4*	.312	.625	.0056	1906EC-3-.0056-6*	.375	.750
.0068	1906EC-3-.0068-4*	.312	.625	.0068	1906EC-3-.0068-6*	.375	.875
.0082	1906EC-3-.0082-4*	.312	.750	.0082	1906EC-3-.0082-6*	.437	.875
.01	1906EC-3-.01-4*	.312	.750	.01	1906EC-3-.01-6*	.437	1.190
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.022	1906EC-3-.022-4*	.437	.875	.022	1906EC-3-.022-6*	.500	1.190
.027	1906EC-3-.027-4*	.437	.875				
.033	1906EC-3-.033-4*	.500	.875				
.039	1906EC-3-.039-4*	.500	1.190				
.047	1906EC-3-.047-4*	.500	1.190				

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\* - Please insert appropriate tolerance code