

Series 2113 Metallized Polyphenylene Sulfide

Features: Flame retardant to UL94, miniature size, long term stability, high insulation resistance, low dissipation factor, high temperature rating.

Applications: Timing circuits, filters, replacement for Polycarbonate Film.

Packaging: Axial wrap and fill (TF, TC), radial lead box (EFR), axial lead epoxy tube (EC).

Specifications

1) Temperature Range

-55°C to +125°C at rated voltage.

2) Capacitance

0.001μF to 2μF

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 50,000 Megohm-Microfarads, but need not exceed 100,000 Megohms for voltages greater than 75 VDC, and 15,000 Megohm-Microfarads, but need not exceed 50,000 Megohms for 75 VDC or less.

5) Humidity Resistance

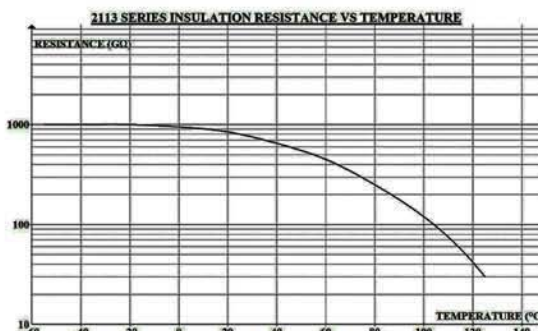
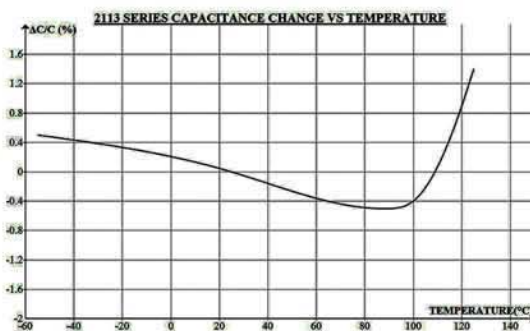
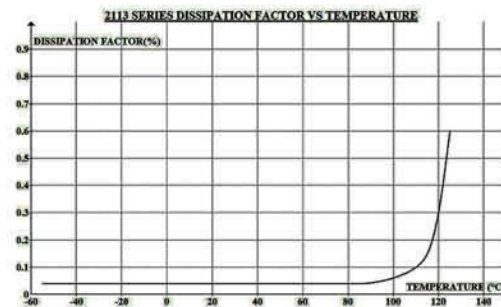
Series 2113 shall meet the requirements of MIL-STD. 202, Method 103B.

6) Dissipation Factor

Shall be 0.3% max. when measured at 1KHz and 25°C.

7) Life Test

Will withstand the application of 140% rated voltage at + 125°C for 250 hours with not more than one failure in 12 permitted.



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



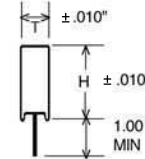
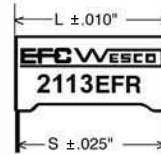
Please consult factory for special requirements, including non-standard values and sizes

2113EFR
Rectangular Plastic Case
(Radial Leads)

**Metallized
Polyphenylene
Sulfide Capacitors**

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

Dimensions and Ratings



63 VDC / 40 VAC					
Cap. μ F	Part #	T in. (mm)	L in. (mm)	H in. (mm)	S in. (mm)
.001	2113EFR-B-001-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0012	2113EFR-B-0012-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0015	2113EFR-B-0015-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0022	2113EFR-B-0022-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0027	2113EFR-B-0027-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0039	2113EFR-B-0039-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0047	2113EFR-B-0047-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0056	2113EFR-B-0056-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0068	2113EFR-B-0068-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0082	2113EFR-B-0082-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.01	2113EFR-B-01-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.012	2113EFR-B-012-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.015	2113EFR-B-015-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.018	2113EFR-B-018-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.022	2113EFR-B-022-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.027	2113EFR-B-027-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.033	2113EFR-B-033-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.039	2113EFR-B-039-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.047	2113EFR-B-047-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.056	2113EFR-B-056-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.068	2113EFR-B-068-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.082	2113EFR-B-082-63-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.1	2113EFR-C-1-63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.12	2113EFR-C-12-63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.15	2113EFR-C-15-63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.18	2113EFR-C-18-63-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.22	2113EFR-D-22-63-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.27	2113EFR-D-27-63-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.33	2113EFR-D-33-63-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.39	2113EFR-D-39-63-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.47	2113EFR-E-47-63-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.56	2113EFR-F-56-63-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.68	2113EFR-F-68-63-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.82	2113EFR-G-82-63-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
1.0	2113EFR-G-1.0-63-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
1.20	2113EFR-H-1.2-63-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
1.50	2113EFR-J-1.5-63-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
1.50	2113EFR-L-1.5-63-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
2.20	2113EFR-J-2.2-63-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
2.20	2113EFR-L-2.2-63-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
3.30	2113EFR-K-3.3-63-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
3.30	2113EFR-M-3.3-63-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
4.70	2113EFR-N-4.7-63-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
5.60	2113EFR-P-5.6-63-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)

100 VDC / 63 VAC					
Cap. μ F	Part #	T in. (mm)	L in. (mm)	H in. (mm)	S in. (mm)
.001	2113EFR-B-001-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0012	2113EFR-B-0012-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0015	2113EFR-B-0015-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0022	2113EFR-B-0022-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0027	2113EFR-B-0027-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0039	2113EFR-B-0039-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0047	2113EFR-B-0047-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0056	2113EFR-B-0056-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0068	2113EFR-B-0068-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0082	2113EFR-B-0082-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.01	2113EFR-B-01-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.012	2113EFR-B-012-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.015	2113EFR-B-015-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.018	2113EFR-B-018-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.022	2113EFR-B-022-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.027	2113EFR-B-027-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.033	2113EFR-B-033-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.039	2113EFR-B-039-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.047	2113EFR-B-047-1-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.056	2113EFR-C-056-1-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.068	2113EFR-C-068-1-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.082	2113EFR-C-082-1-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.1	2113EFR-C-1-1-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.12	2113EFR-D-12-1-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.15	2113EFR-D-15-1-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.18	2113EFR-E-18-1-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.22	2113EFR-E-22-1-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.27	2113EFR-F-27-1-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.33	2113EFR-F-33-1-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.39	2113EFR-G-39-1-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.47	2113EFR-G-47-1-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.56	2113EFR-H-56-1-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.68	2113EFR-H-68-1-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.82	2113EFR-H-82-1-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
1.0	2113EFR-K-1.0-1-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
1.20	2113EFR-M-1.0-1-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
1.50	2113EFR-K-1.25-1-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
1.50	2113EFR-M-1.25-1-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
2.20	2113EFR-K-1.5-1-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
2.20	2113EFR-M-1.5-1-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
3.30	2113EFR-N-2.2-1-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
3.30	2113EFR-P-3.3-1-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
4.70	2113EFR-P-4.7-1-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
5.60	2113EFR-Q-5.6-1-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)

* - Please insert appropriate tolerance code



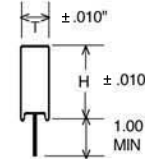
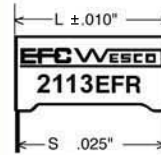
Please consult factory for special requirements, including non-standard values and sizes

2113EFR
Rectangular Plastic Case
(Radial Leads)

Metallized Polyphenylene Sulfide Capacitors

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

Dimensions and Ratings



160 VDC / 100 VAC						250 VDC / 160 VAC					
Cap.	Part #	T	L	H	S	Cap.	Part #	T	L	H	S
µF		in. (mm)	in. (mm)	in. (mm)	in. (mm)	µF		in. (mm)	in. (mm)	in. (mm)	in. (mm)
.001	2113EFR-B-.001-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.001	2113EFR-B-.001-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0012	2113EFR-B-.0012-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0012	2113EFR-B-.0012-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0015	2113EFR-B-.0015-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0015	2113EFR-B-.0015-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0022	2113EFR-B-.0022-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0022	2113EFR-B-.0022-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0027	2113EFR-B-.0027-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0027	2113EFR-B-.0027-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0039	2113EFR-B-.0039-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0039	2113EFR-B-.0039-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0047	2113EFR-B-.0047-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0047	2113EFR-B-.0047-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0056	2113EFR-B-.0056-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0056	2113EFR-B-.0056-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0068	2113EFR-B-.0068-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0068	2113EFR-B-.0068-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0082	2113EFR-B-.0082-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.0082	2113EFR-B-.0082-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.01	2113EFR-B-.01-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.01	2113EFR-B-.01-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.012	2113EFR-B-.012-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.012	2113EFR-B-.012-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.015	2113EFR-B-.015-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.015	2113EFR-B-.015-2.5-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.018	2113EFR-B-.018-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.018	2113EFR-C-.018-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.022	2113EFR-B-.022-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.022	2113EFR-C-.022-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.027	2113EFR-B-.027-1.6-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)	.027	2113EFR-C-.027-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.033	2113EFR-B-.033-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.033	2113EFR-C-.033-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.039	2113EFR-B-.039-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.039	2113EFR-C-.039-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.047	2113EFR-B-.047-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.047	2113EFR-C-.047-2.5-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.056	2113EFR-C-.056-1.6-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)	.056	2113EFR-D-.056-2.5-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.068	2113EFR-C-.068-1.6-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)	.068	2113EFR-D-.068-2.5-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.082	2113EFR-C-.082-1.6-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)	.082	2113EFR-D-.082-2.5-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.1	2113EFR-C-.1-1.6-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)	.1	2113EFR-D-.1-2.5-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.12	2113EFR-D-.12-1.6-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)	.12	2113EFR-D-.12-2.5-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.15	2113EFR-D-.15-1.6-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)	.15	2113EFR-D-.15-2.5-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.18	2113EFR-E-.18-1.6-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)	.18	2113EFR-G-.18-2.5-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.22	2113EFR-E-.22-1.6-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)	.22	2113EFR-G-.22-2.5-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.27	2113EFR-F-.27-1.6-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)	.27	2113EFR-H-.27-2.5-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.33	2113EFR-F-.33-1.6-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)	.33	2113EFR-H-.33-2.5-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.39	2113EFR-G-.39-1.6-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)	.39	2113EFR-K-.39-2.5-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.47	2113EFR-G-.47-1.6-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)	.47	2113EFR-M-.47-2.5-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.56	2113EFR-H-.56-1.6-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)	.47	2113EFR-K-.47-2.5-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.68	2113EFR-H-.68-1.6-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)	.47	2113EFR-M-.47-2.5-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.82	2113EFR-H-.82-1.6-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)	.56	2113EFR-O-.56-2.5-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.82	2113EFR-K-.82-1.6-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)	.68	2113EFR-O-.68-2.5-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
1.0	2113EFR-M-1.0-1.6-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)	.82	2113EFR-O-.82-2.5-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
1.0	2113EFR-K-1.0-1.6-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)	1.0	2113EFR-O-1.0-2.5-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
1.25	2113EFR-M-1.25-1.6-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)	1.25	2113EFR-P-1.25-2.5-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
1.25	2113EFR-K-1.25-1.6-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)	1.50	2113EFR-P-1.5-2.5-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
1.50	2113EFR-M-1.5-1.6-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)	2.20	2113EFR-Q-2.2-2.5-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)
2.20	2113EFR-N-2.2-1.6-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)						
3.30	2113EFR-P-3.3-1.6-*	.512 (13.0)	1.26 (32.0)	.866 (22.0)	1.08 (27.5)						

* - Please insert appropriate tolerance code



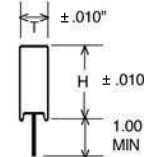
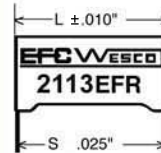
Please consult factory for special requirements, including non-standard values and sizes

2113EFR
Rectangular Plastic Case
(Radial Leads)

**Metallized
Polyphenylene
Sulfide Capacitors**

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

Dimensions and Ratings



Cap.	400 VDC / 220 VAC				
µF	Part #	T in. (mm)	L in. (mm)	H in. (mm)	S in. (mm)
.001	2113EFR-B-.001-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0012	2113EFR-B-.0012-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0015	2113EFR-B-.0015-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0022	2113EFR-B-.0022-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0027	2113EFR-B-.0027-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0039	2113EFR-B-.0039-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0047	2113EFR-B-.0047-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0056	2113EFR-B-.0056-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0068	2113EFR-B-.0068-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.0082	2113EFR-B-.0082-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.01	2113EFR-B-.01-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.012	2113EFR-B-.012-4-*	.157 (4.0)	.413 (10.5)	.354 (9.0)	.295 (7.5)
.015	2113EFR-C-.015-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.018	2113EFR-C-.018-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.022	2113EFR-C-.022-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.027	2113EFR-C-.027-4-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.033	2113EFR-D-.033-4-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.039	2113EFR-D-.039-4-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.047	2113EFR-D-.047-4-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.056	2113EFR-E-.056-4-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.068	2113EFR-E-.068-4-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.082	2113EFR-F-.082-4-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.1	2113EFR-G-.1-4-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.12	2113EFR-H-.12-4-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.15	2113EFR-H-.15-4-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.18	2113EFR-J-.18-4-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.18	2113EFR-L-.18-4-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.22	2113EFR-K-.22-4-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.22	2113EFR-M-.22-4-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.27	2113EFR-K-.27-4-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.27	2113EFR-M-.27-4-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.33	2113EFR-N-.33-4-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.39	2113EFR-N-.39-4-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.47	2113EFR-O-.47-4-*	.394 (10.0)	1.04 (26.5)	.748 (19.0)	.886 (22.5)
.56	2113EFR-O-.56-4-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.68	2113EFR-O-.68-4-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)

Cap.	630 VDC / 250 VAC				
µF	Part #	T in. (mm)	L in. (mm)	H in. (mm)	S in. (mm)
.001	2113EFR-C-.001-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0012	2113EFR-C-.0012-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0015	2113EFR-C-.0015-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0022	2113EFR-C-.0022-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0027	2113EFR-C-.0027-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0039	2113EFR-C-.0039-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0047	2113EFR-C-.0047-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0056	2113EFR-C-.0056-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0068	2113EFR-C-.0068-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.0082	2113EFR-C-.0082-6.3-*	.157 (4.0)	.512 (13.0)	.354 (9.0)	.394 (10.0)
.01	2113EFR-D-.01-6.3-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.012	2113EFR-D-.012-6.3-*	.197 (5.0)	.512 (13.0)	.433 (11.0)	.394 (10.0)
.015	2113EFR-E-.015-6.3-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.018	2113EFR-E-.018-6.3-*	.236 (6.0)	.512 (13.0)	.472 (12.0)	.394 (10.0)
.022	2113EFR-F-.022-6.3-*	.197 (5.0)	.709 (18.0)	.433 (11.0)	.591 (15.0)
.027	2113EFR-G-.027-6.3-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.033	2113EFR-G-.033-6.3-*	.236 (6.0)	.709 (18.0)	.472 (12.0)	.591 (15.0)
.039	2113EFR-H-.039-6.3-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.047	2113EFR-H-.047-6.3-*	.295 (7.5)	.709 (18.0)	.531 (13.5)	.591 (15.0)
.056	2113EFR-J-.056-6.3-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.056	2113EFR-L-.056-6.3-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.068	2113EFR-J-.068-6.3-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.787 (20.0)
.068	2113EFR-L-.068-6.3-*	.236 (6.0)	1.04 (26.5)	.591 (15.0)	.886 (22.5)
.082	2113EFR-K-.082-6.3-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.082	2113EFR-M-.082-6.3-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.1	2113EFR-K-.1-6.3-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.787 (20.0)
.1	2113EFR-M-.1-6.3-*	.276 (7.0)	1.04 (26.5)	.630 (16.0)	.886 (22.5)
.12	2113EFR-N-12-6.3-*	.335 (8.5)	1.04 (26.5)	.642 (16.3)	.886 (22.5)
.15	2113EFR-O-15-6.3-*	.394 (10.0)	.394 (10.0)	.394 (10.0)	.886 (22.5)
.18	2113EFR-O-18-6.3-*	.394 (10.0)	.394 (10.0)	.394 (10.0)	.886 (22.5)
.22	2113EFR-P-22-6.3-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)
.27	2113EFR-O-27-6.3-*	.433 (11.0)	1.26 (32.0)	.787 (20.0)	1.08 (27.5)

* - Please insert appropriate tolerance code