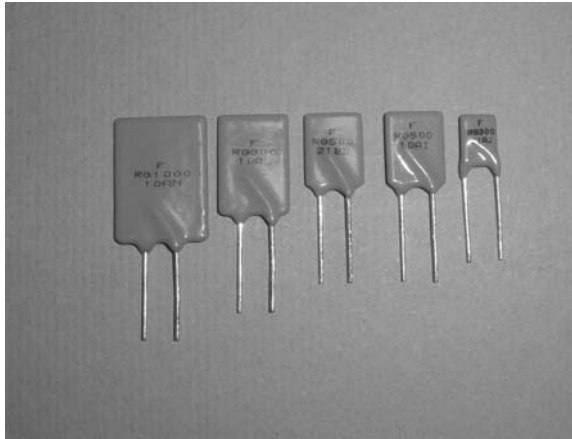


Radial Leaded PTC FRG Series



Application:

Wide variety of electronic equipment

Product Features:

Very high hold current, Solid state

Radial-leaded product ideal for up to 16Vdc

Operation Current: 3 A~14A

Maximum Voltage: 16V

Temperature Range: -40°C to 85°C

Agency Recognition: UL(E211981)

C-UL(E211981)

TÜV (R50004084)

Electrical Characteristics(23°C)

Part Number	Hold Current I _H , A	Trip Current I _T , A	Max.time to trip at 5xI _H	Maximum Current I _{MAX} , A	Rated Voltage V _{MAX} , Vdc	Typical Power Pd, w	Resistance Tolerance	
							R _{MIN} Ω	R _{1MAX} Ω
FRG300-16	3.0	5.1	2.0	100	16	2.3	0.034	0.105
FRG400-16	4.0	6.8	3.5	100	16	2.4	0.020	0.063
FRG500-16	5.0	8.5	3.6	100	16	2.6	0.014	0.044
FRG600-16	6.0	10.2	5.8	100	16	2.8	0.009	0.033
FRG700-16	7.0	11.9	8.0	100	16	3.0	0.006	0.021
FRG800-16	8.0	13.6	9.0	100	16	3.0	0.005	0.018
FRG900-16	9.0	15.3	12.0	100	16	3.3	0.004	0.015
FRG1000-16	10.0	17.0	12.5	100	16	3.3	0.003	0.012
FRG1100-16	11.0	18.7	13.5	100	16	3.7	0.003	0.010
FRG1200-16	12.0	20.4	16.0	100	16	4.2	0.002	0.009
FRG1400-16	14.0	23.8	20.0	100	16	4.6	0.002	0.008

I_H=Hold current-maximum current at which the device will not trip at 23°C still air.

I_T=Trip current-minimum current at which the device will always trip at 23°C still air.

V_{MAX}=Maximum voltage device can withstand without damage at its rated current.

I_{MAX}= Maximum fault current device can withstand without damage at rated voltage (V max).

Pd=Typical power dissipated from device when in the tripped state in 23°C still air environment.

R_{MIN}=Minimum device resistance at 23°C.

R_{1MAX}=Maximum device resistance at 23°C, 1 hour after tripping .

Physical specifications:

Lead material: FRG300~FRG1100 Tin plated copper, 20 AWG.

FRG1200~FRG1400 Tin plated copper, 18 AWG.

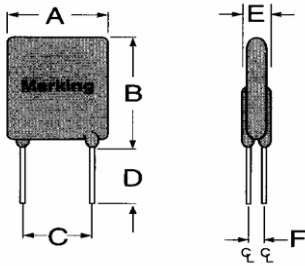
Soldering characteristics: MIL-STD-202, Method 208E.

Insulating coating:Flame retardant epoxy, meet UL-94V-0 requirement.

Radial Leaded PTC FRG Series



FRG Product Dimensions (millimeters)



Lead Size

FRG300-16~FRG1100~16

Φ0.81 mm Diameter

20AWG

Lead Size

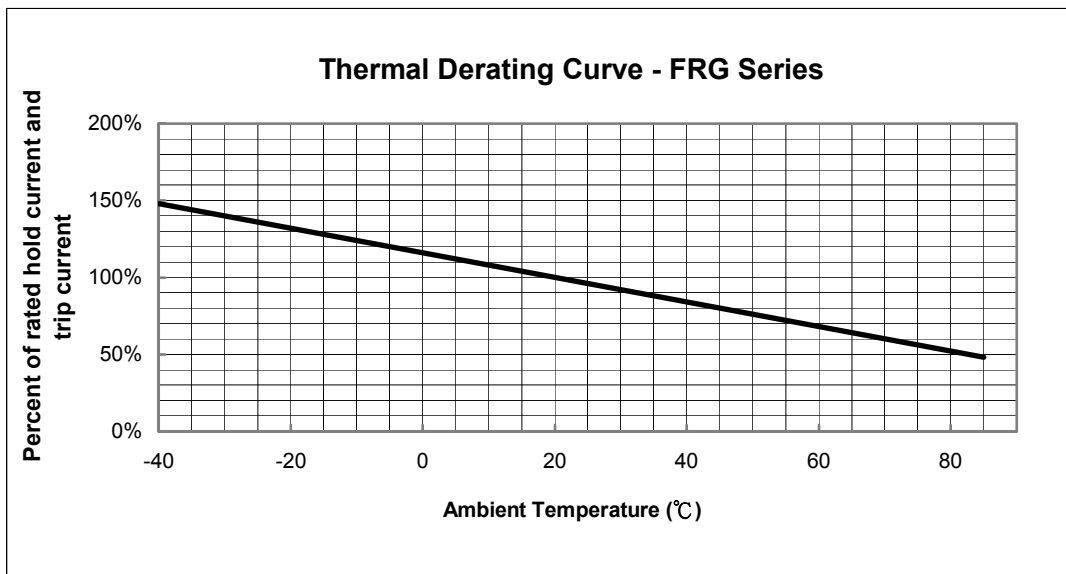
FRG1200-16~FRG1400-16

Φ1.0 mm Diameter

18AWG

Part Number	A	B	C	D	E	F
	Maximum	Maximum	Typical	Minimum	Maximum	Typical
FRG300-16	7.1	11.0	5.1	7.6	3.0	1.2
FRG400-16	8.9	12.8	5.1	7.6	3.0	1.2
FRG500-16	10.4	14.3	5.1	7.6	3.0	1.2
FRG600-16	10.7	17.1	5.1	7.6	3.0	1.2
FRG700-16	11.2	19.7	5.1	7.6	3.0	1.2
FRG800-16	12.7	20.9	5.1	7.6	3.0	1.2
FRG900-16	14.0	21.7	5.1	7.6	3.0	1.2
FRG1000-16	16.5	24.1	5.1	7.6	3.0	1.2
FRG1100-16	17.5	26.0	5.1	7.6	3.0	1.2
FRG1200-16	17.5	28.0	10.2	7.6	3.6	1.4
FRG1400-16	27.9	27.9	10.2	7.6	3.6	1.4

Thermal Derating Curve

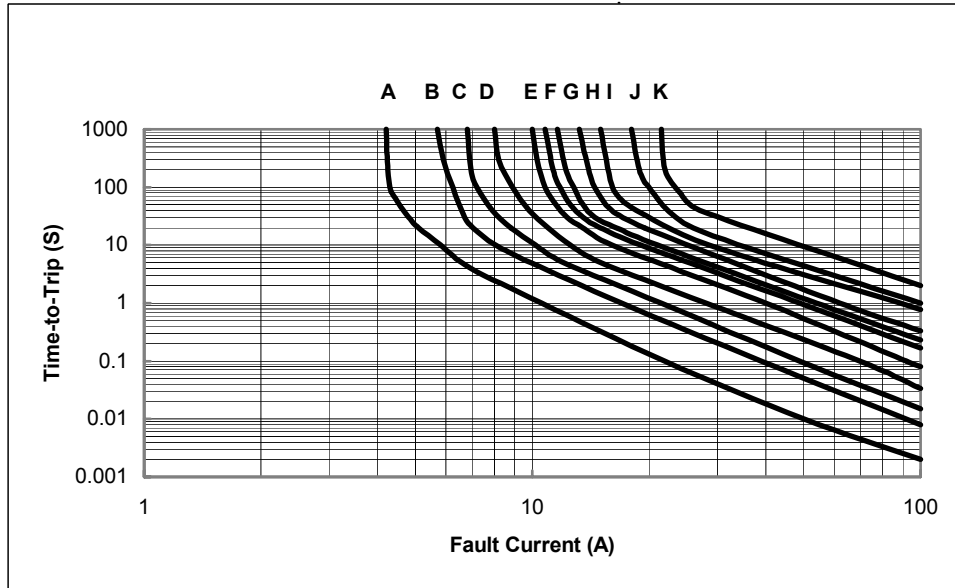


Radial Leaded PTC FRG Series



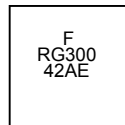
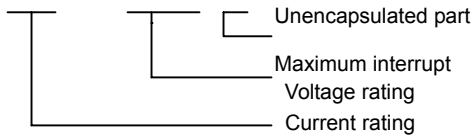
Typical Time-To-Trip at 23°C

- A=FRG300-16
- B=FRG400-16
- C=FRG500-16
- D=FRG600-16
- E=FRG700-16
- F=FRG800-16
- G=FRG900-16
- H=FRG1000-16
- I=FRG1100-16
- J=FRG1200-16
- K=FRG1400-16



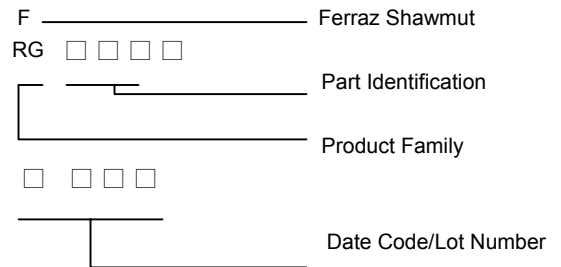
Part Numbering System

FRG □ □ □ □ - □ □ □



Example

Part Marking System



Standard Package

P/N	Pcs /Bag	Reel/Tape
FRG300-16	500	2.5k
FRG400-16	300	2.5k
FRG500-16	300	2.5k
FRG600-16	300	2.5k
FRG700-16	200	1.2k
FRG800-16	200	-----

P/N	Pcs /Bag	Reel/Tape
FRG900 -16	200	-----
FRG1000-16	100	-----
FRG1100-16	100	-----
FRG1200-16	100	-----
FRG1400-16	100	-----

- Warning:**
- Operation beyond the specified maximum ratings or improper use may result in damage and possible electrical arcing and/or flame.
 - PPTC device are intended for occasional overcurrent protection. Application for repeated overcurrent condition and/or prolonged trip are not anticipated.
 - Avoid contact of PPTC device with chemical solvent. Prolonged contact will damage the device performance.

