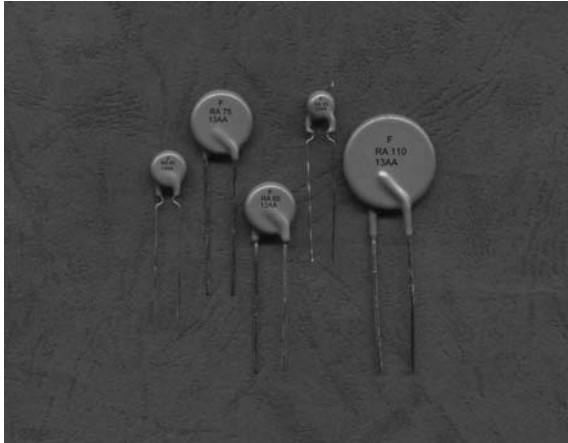


Radial Leaded PTC FRA Series



Application:

Wide variety of electronic equipment

Product Features:

Low hold current, Solid state

Radial-leaded product ideal for up to 120VDC/120VAC

Operation Current: 100mA~3.75A

Maximum Voltage: 120VDC/120VAC

Temperature Range: -40°C to 85°C

Agency Recognition: UL, C-UL & TÜV pending

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} , Vac	Typical Power Pd, w	Resistance Tolerance	
							R _{MIN} Ω	R _{1MAX} Ω
FRA010-120	0.10	0.20	4.0	2.0	120	0.57	2.50	7.50
FRA017-120	0.17	0.34	3.0	2.0	120	0.59	2.00	7.00
FRA020-120	0.20	0.40	2.2	2.0	120	0.62	1.83	4.40
FRA025-120	0.25	0.50	2.5	3.0	120	0.68	1.25	3.00
FRA030-120	0.30	0.60	3.0	3.0	120	0.74	0.88	2.10
FRA040-120	0.40	0.80	3.8	3.0	120	0.84	0.55	1.29
FRA050-120	0.50	1.00	4.0	3.0	120	1.16	0.50	1.17
FRA065-120	0.65	1.30	5.3	3.0	120	1.32	0.31	0.72
FRA075-120	0.75	1.50	6.3	5.0	120	1.38	0.25	0.60
FRA090-120	0.90	1.80	7.2	5.0	120	1.49	0.20	0.47
FRA110-120	1.10	2.20	8.2	5.0	120	2.25	0.15	0.38
FRA135-120	1.35	2.70	9.6	8.0	120	2.55	0.12	0.30
FRA160-120	1.60	3.20	11.4	8.0	120	2.85	0.09	0.22
FRA185-120	1.85	3.70	12.6	8.0	120	3.15	0.08	0.19
FRA250-120	2.50	5.00	15.6	12.0	120	3.75	0.05	0.13
FRA300-120	3.00	6.00	19.8	15.0	120	4.20	0.04	0.10
FRA375-120	3.75	7.50	24.0	15.0	120	4.80	0.03	0.08

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: FRA010~FRA090 Tin plated copper, 22 AWG.

FRA110~FRA375 Tin plated copper, 20 AWG.

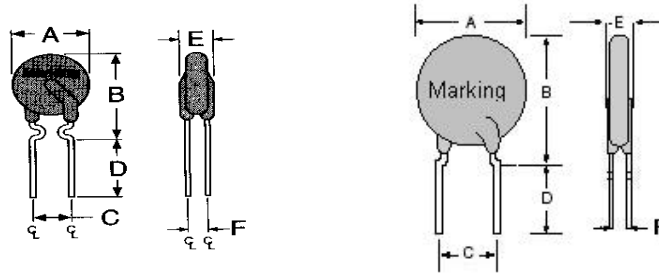
Soldering characteristics:MIL-STD-202, Method 208E.

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

Radial Leaded PTC FRA Series



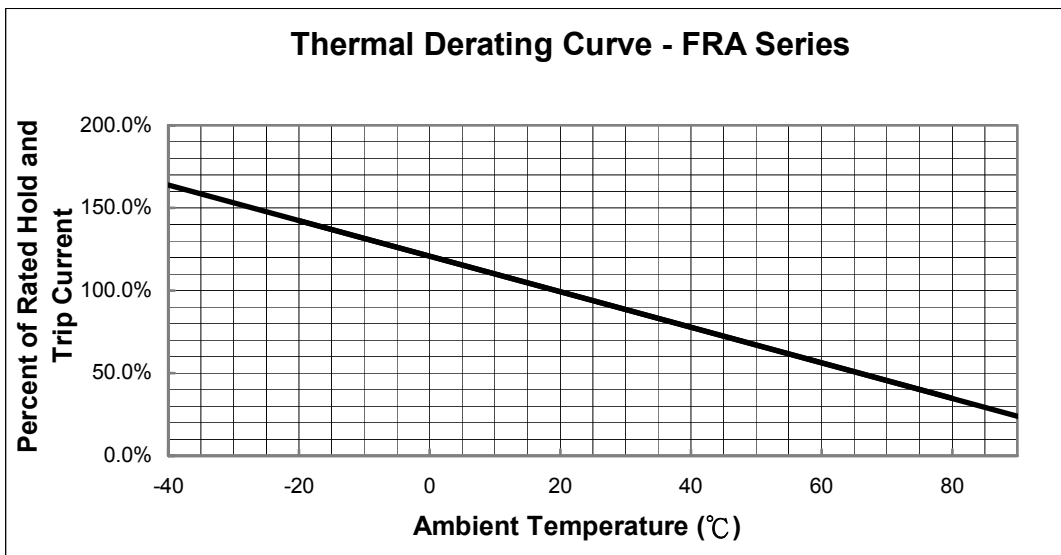
FRA Product Dimensions (millimeters)



FRA 010-120 ~ FRA 090-120
Lead Size: 22AWG,
Φ 0.65 mm Diameter

FRA 110-120 ~ FRA 375-120
Lead Size : 20AWG,
Φ 0.81 mm Diameter

Part Number	A	B	C	D	E	F
	Maximum	Maximum	Typical	Minimum	Maximum	Typical
FRA010-120	7.9	12.7	5.1	7.6	5.0	3.0
FRA017-120	7.9	12.7	5.1	7.6	5.0	3.0
FRA020-120	7.9	12.2	5.1	7.6	5.0	3.0
FRA025-120	7.9	12.7	5.1	7.6	5.0	3.0
FRA030-120	7.9	13.0	5.1	7.6	5.0	3.0
FRA040-120	8.2	14.2	5.1	7.6	5.0	3.0
FRA050-120	9.2	14.9	5.1	7.6	5.0	3.0
FRA065-120	9.7	14.9	5.1	7.6	5.0	3.0
FRA075-120	10.6	15.5	5.1	7.6	5.0	3.0
FRA090-120	11.9	15.9	5.1	7.6	5.0	3.0
FRA110-120	13.3	18.3	5.1	7.6	5.0	3.0
FRA135-120	15.5	20.6	5.1	7.6	5.0	3.0
FRA160-120	17.5	22.5	5.1	7.6	5.0	3.0
FRA185-120	19.9	24.9	5.1	7.6	5.0	3.0
FRA250-120	22.5	27.5	10.2	7.6	5.0	3.0
FRA300-120	25.5	30.0	10.2	7.6	5.0	3.0
FRA375-120	29.5	34.0	10.2	7.6	5.0	3.0

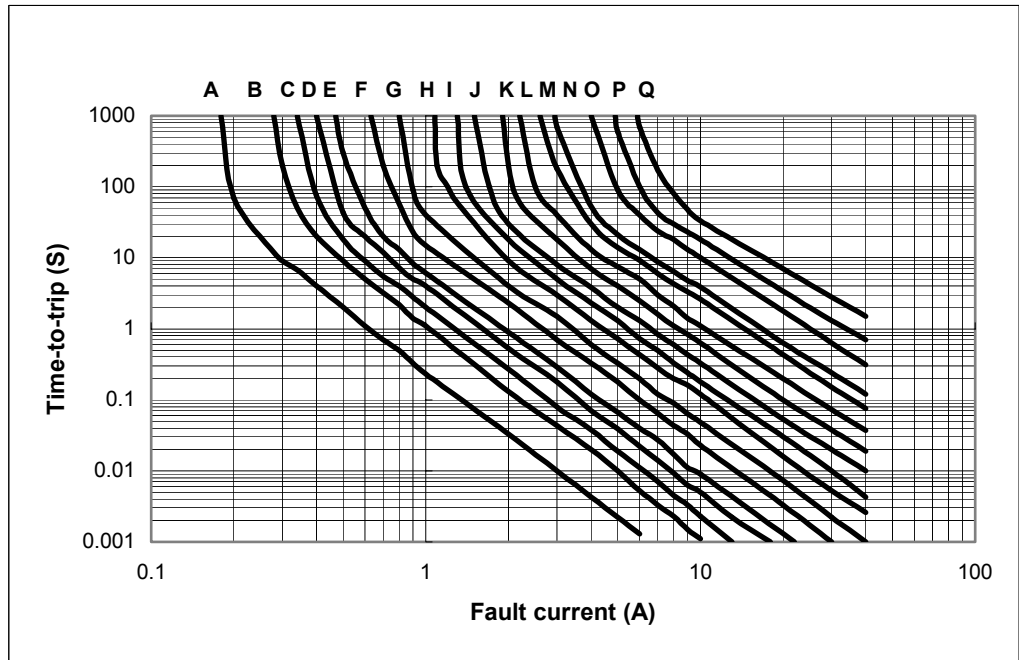


Radial Leaded PTC FRA Series



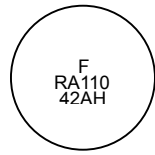
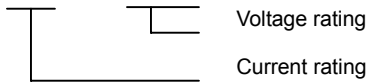
Typical Time-To-Trip at 23°C

- A = FRA010-120
- B = FRA017-120
- C = FRA020-120
- D = FRA025-120
- E = FRA030-120
- F = FRA040-120
- G = FRA050-120
- H = FRA065-120
- I = FRA075-120
- J = FRA090-120
- K = FRA110-120
- L = FRA135-120
- M = FRA160-120
- N = FRA185-120
- O = FRA250-120
- P = FRA300-120
- Q = FRA375-120



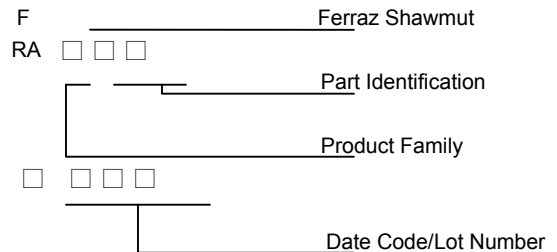
Part Numbering System

FRA □ □ □ - □ □ □



Example

Part Marking System



Standard Package

P/N	Pcs /Bag	Reel/Tape
FRA010-120	300	1.5K
FRA017-120	300	1.5K
FRA020-120	300	1.5K
FRA025-120	300	1.5K
FRA030-120	300	1.5K
FRA040-120	300	1.5K
FRA050-120	300	1.5K
FRA065-120	300	1.5K
FRA075-120	300	1.5K

P/N	Pcs /Bag	Reel/Tape
FRA090-120	300	1.5K
FRA110-120	300	600
FRA135-120	200	600
FRA160-120	200	-----
FRA185-120	200	-----
FRA250-120	100	-----
FRA300-120	100	-----
FRA375-120	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.