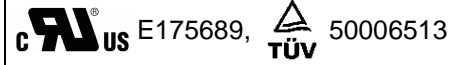




ECE —
The Name You Can Trust!

RADIAL LEADED PTC RA MODEL



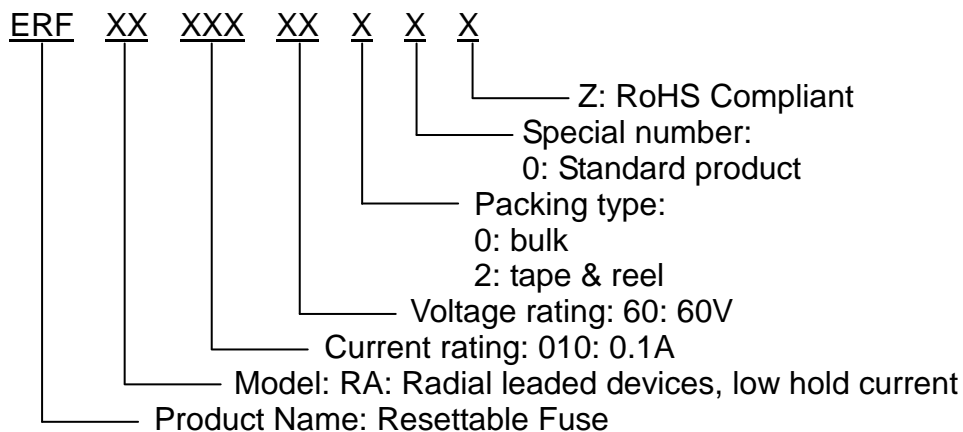
■ FEATURES

- Radial Leaded, lower hold current, solid state
- Operation current: 50mA~3.75A
- Maximum Voltage: 60V
- Temperature range: -40°C to 85°C
- Cured, flame retardant epoxy polymer insulating material meets UL 94V-0 requirement
- Bulk packaging, tape and reel available on most models

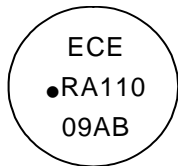
■ APPLICATIONS

- ◆ Ideal for low voltage power supply with a load to be protected:
- Computers & peripherals
- Security and fire alarm system
- General electronics
- Loud speakers
- Automotive applications
- Power transformers

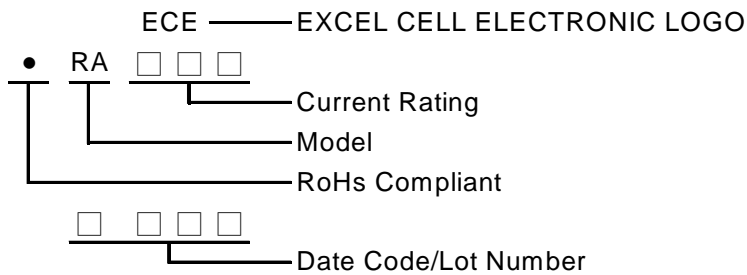
■ PART NUMBERING SYSTEM



■ Marking system



Example



*If the current rating is under 1Amp there will be no "ECE" logo shown on the body.

■ 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} , V _{dc} | Typical Power Pd, W | Resistance Tolerance | |
|-------------|------------------------------------|------------------------------------|--|---|---|------------------------|-----------------------|------------------------|
| | | | | | | | R _{MIN} Ω | R _{1MAX} Ω |
| RA005-60 | 0.05 | 0.10 | 5.0 | 40 | 60 | 0.26 | 7.30 | 20.0 |
| RA010-60 | 0.10 | 0.20 | 4.0 | 40 | 60 | 0.38 | 2.50 | 7.50 |
| RA017-60 | 0.17 | 0.34 | 3.0 | 40 | 60 | 0.48 | 2.00 | 7.00 |
| RA020-60 | 0.20 | 0.40 | 2.2 | 40 | 60 | 0.41 | 1.83 | 4.40 |
| RA025-60 | 0.25 | 0.50 | 2.5 | 40 | 60 | 0.45 | 1.25 | 3.00 |
| RA030-60 | 0.30 | 0.60 | 3.0 | 40 | 60 | 0.49 | 0.88 | 2.10 |
| RA040-60 | 0.40 | 0.80 | 3.8 | 40 | 60 | 0.56 | 0.55 | 1.29 |
| RA050-60 | 0.50 | 1.00 | 4.0 | 40 | 60 | 0.77 | 0.50 | 1.17 |
| RA065-60 | 0.65 | 1.30 | 5.3 | 40 | 60 | 0.88 | 0.31 | 0.72 |
| RA075-60 | 0.75 | 1.50 | 6.3 | 40 | 60 | 0.92 | 0.25 | 0.60 |
| RA090-60 | 0.90 | 1.80 | 7.2 | 40 | 60 | 0.99 | 0.20 | 0.47 |
| RA110-60 | 1.10 | 2.20 | 8.2 | 40 | 60 | 1.50 | 0.15 | 0.38 |
| RA135-60 | 1.35 | 2.70 | 9.6 | 40 | 60 | 1.70 | 0.12 | 0.30 |
| RA160-60 | 1.60 | 3.20 | 11.4 | 40 | 60 | 1.90 | 0.09 | 0.22 |
| RA185-60 | 1.85 | 3.70 | 12.6 | 40 | 60 | 2.10 | 0.08 | 0.19 |
| RA250-60 | 2.50 | 5.00 | 15.6 | 40 | 60 | 2.50 | 0.05 | 0.13 |
| RA300-60 | 3.00 | 6.00 | 19.8 | 40 | 60 | 2.80 | 0.04 | 0.10 |
| RA375-60 | 3.75 | 7.50 | 24.0 | 40 | 60 | 3.20 | 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 rated current.

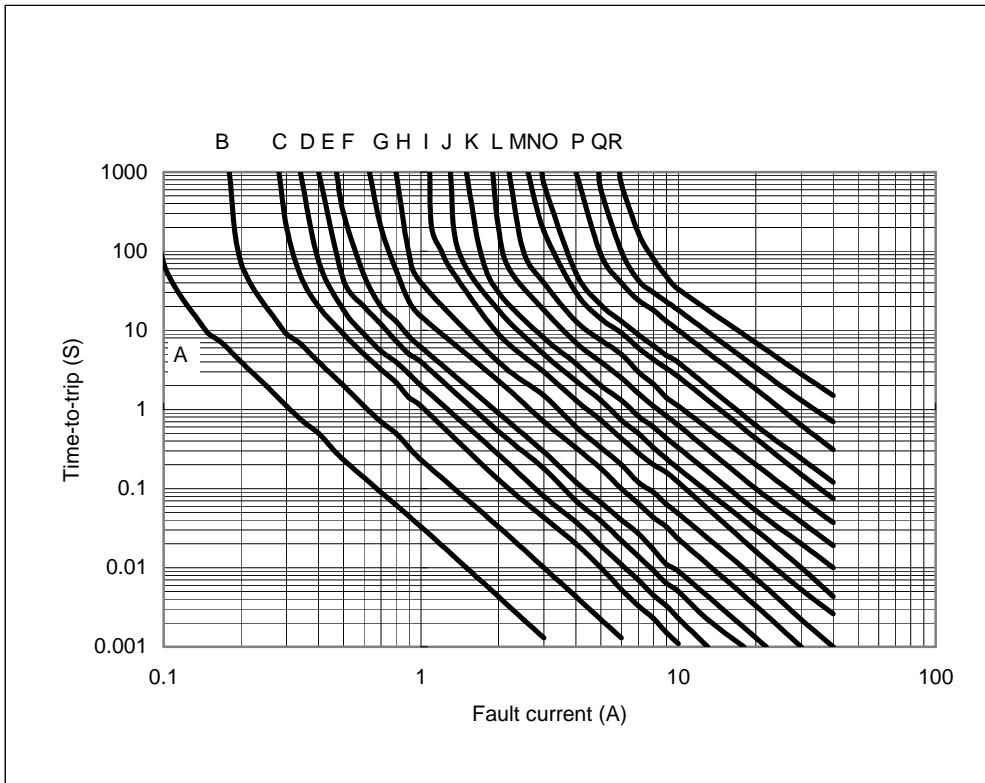
I_{MAX}= Maximum fault current device can withstand without damage at rated voltage (V max).

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.

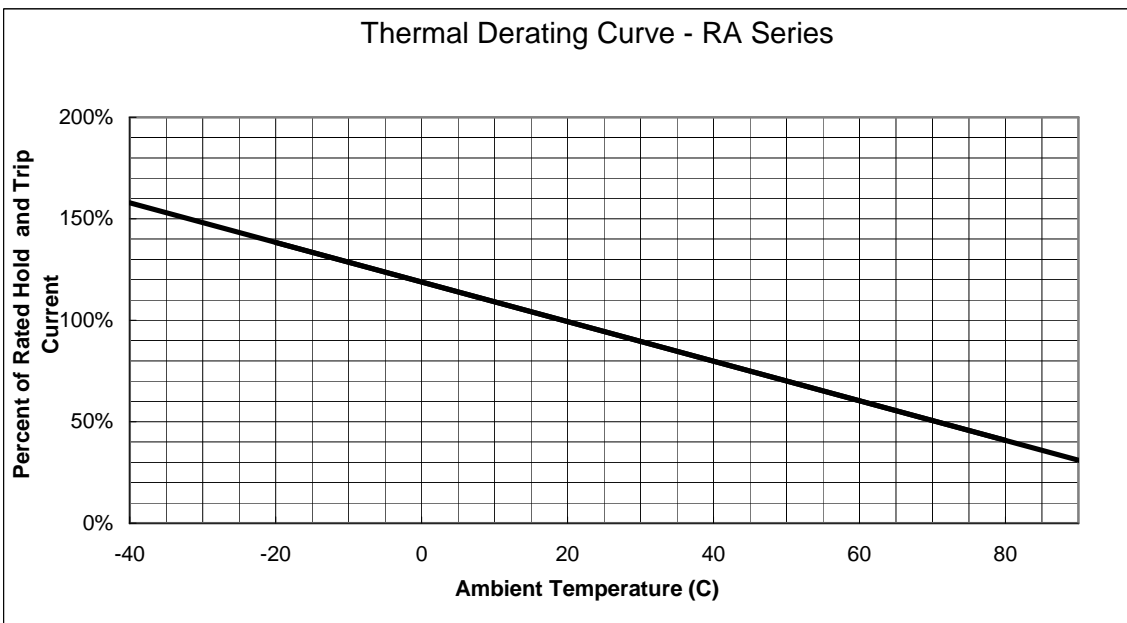
R_{1MAX}=Maximum device resistance at 23°C 1 hour after tripping .

■ Typical time-to-trip-at 23°C



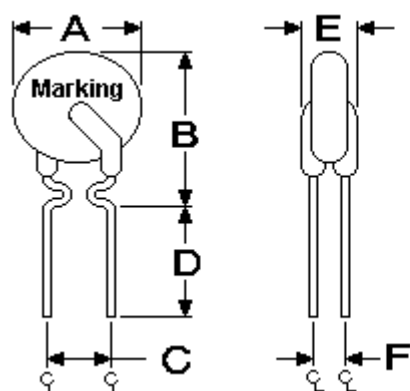
- A=RA005-60
- B=RA010-60
- C=RA017-60
- D=RA020-60
- E=RA025-60
- F=RA030-60
- G=RA040-60
- H=RA050-60
- I=RA065-60
- J=RA075-60
- K=RA090-60
- L=RA110-60
- M=RA135-60
- N=RA160-60
- O=RA185-60
- P=RA250-60
- Q=RA300-60
- R=RA375-60

■ Thermal Derating Curve

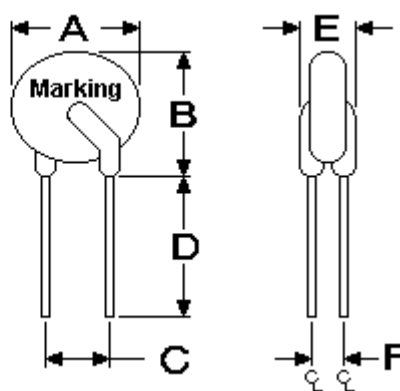


■ RA Product Dimensions (UNIT: mm)

| Part Number | A | B | C | D | E | F |
|-------------|---------|---------|---------|---------|---------|---------|
| | Maximum | Maximum | Typical | Minimum | Maximum | Typical |
| RA005-60 | 7.4 | 12.7 | 5.1 | 7.6 | 3.1 | 1.1 |
| RA010-60 | 7.4 | 12.7 | 5.1 | 7.6 | 3.1 | 1.1 |
| RA017-60 | 7.4 | 12.7 | 5.1 | 7.6 | 3.1 | 1.1 |
| RA020-60 | 7.4 | 12.2 | 5.1 | 7.6 | 3.1 | 1.1 |
| RA025-60 | 7.4 | 12.7 | 5.1 | 7.6 | 3.1 | 1.1 |
| RA030-60 | 7.4 | 13.0 | 5.1 | 7.6 | 3.1 | 1.1 |
| RA040-60 | 7.6 | 13.5 | 5.1 | 7.6 | 3.1 | 1.1 |
| RA050-60 | 7.9 | 13.7 | 5.1 | 7.6 | 3.1 | 1.1 |
| RA065-60 | 9.7 | 14.5 | 5.1 | 7.6 | 3.1 | 1.1 |
| RA075-60 | 10.4 | 15.2 | 5.1 | 7.6 | 3.1 | 1.1 |
| RA090-60 | 11.7 | 15.8 | 5.1 | 7.6 | 3.1 | 1.1 |
| RA110-60 | 13.0 | 18.0 | 5.1 | 7.6 | 3.1 | 1.4 |
| RA135-60 | 14.5 | 19.6 | 5.1 | 7.6 | 3.1 | 1.4 |
| RA160-60 | 16.3 | 21.3 | 5.1 | 7.6 | 3.1 | 1.4 |
| RA185-60 | 17.8 | 22.9 | 5.1 | 7.6 | 3.1 | 1.4 |
| RA250-60 | 21.3 | 26.4 | 10.2 | 7.6 | 3.1 | 1.4 |
| RA300-60 | 24.9 | 30.0 | 10.2 | 7.6 | 3.1 | 1.4 |
| RA375-60 | 28.5 | 33.5 | 10.2 | 7.6 | 3.1 | 1.4 |



RA 005-60 ~ RA 090-60
 ●Lead Size: 24AWG
 ●φ0.51mm Diameter



RA 110-60 ~ RA 375-60
 ●Lead Size: 20AWG
 ●φ0.81mm Diameter



■ **Standard Package for Reference**

| P/N | Pcs/Bag | Reel/Tape | P/N | Pcs/Bag | Reel/Tape |
|-----------|---------|-----------|-----------|---------|-----------|
| RA-005-60 | 500 | 3.0K | RA-075-60 | 300 | 3.0K |
| RA-010-60 | 500 | 3.0K | RA-090-60 | 300 | 3.0K |
| RA-017-60 | 500 | 3.0K | RA-110-60 | 300 | 1.5K |
| RA-020-60 | 500 | 3.0K | RA-135-60 | 200 | 1.5K |
| RA-025-60 | 500 | 3.0K | RA-160-60 | 200 | 1.5K |
| RA-030-60 | 500 | 3.0K | RA-185-60 | 200 | 1.5K |
| RA-040-60 | 500 | 3.0K | RA-250-60 | 100 | 1.0K |
| RA-050-60 | 500 | 3.0K | RA-300-60 | 100 | 1.0K |
| RA-065-60 | 300 | 3.0K | RA-375-60 | 100 | 1.0K |