



**ECE** —  
**The Name You Can Trust!**

## RADIAL LEADED PTC RA MODEL



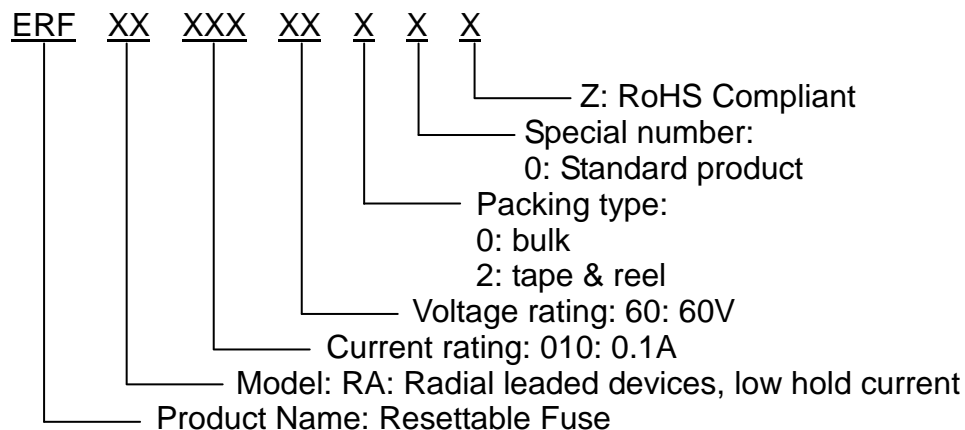
### ■ FEATURES

- 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

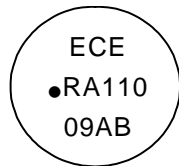
### ■ APPLICATIONS

- ◆ 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

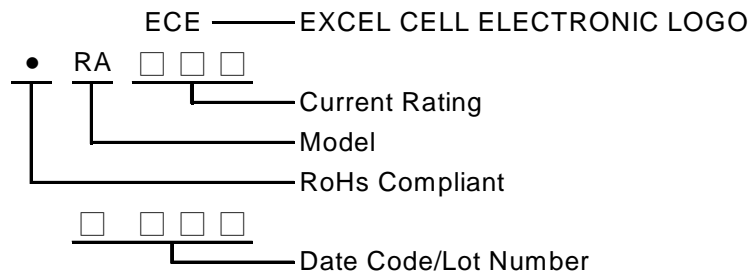
### ■ PART NUMBERING SYSTEM



## ■ 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	Trip Current	Max. Time to trip	Maximum Current	Rated Voltage	Typical Power	Resistance Tolerance	
							R <sub>MIN</sub>	R <sub>1MAX</sub>
	I <sub>H</sub> , A	I <sub>T</sub> , A	at 5xI <sub>H</sub>	I <sub>MAX</sub> , A	V <sub>MAX</sub> , V <sub>dc</sub>	P <sub>d</sub> , W	Ω	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<sub>H</sub>=Hold current-maximum current at which the device will not trip at 23°C still air.

I<sub>T</sub>=Trip current-minimum current at which the device will always trip at 23°C still air.

V<sub>MAX</sub>=Maximum voltage device can withstand without damage at rated current.

I<sub>MAX</sub>= Maximum fault current device can withstand without damage at rated voltage (V max).

P<sub>d</sub>=Typical power dissipated from device when in the tripped state in 23°C still air environment.

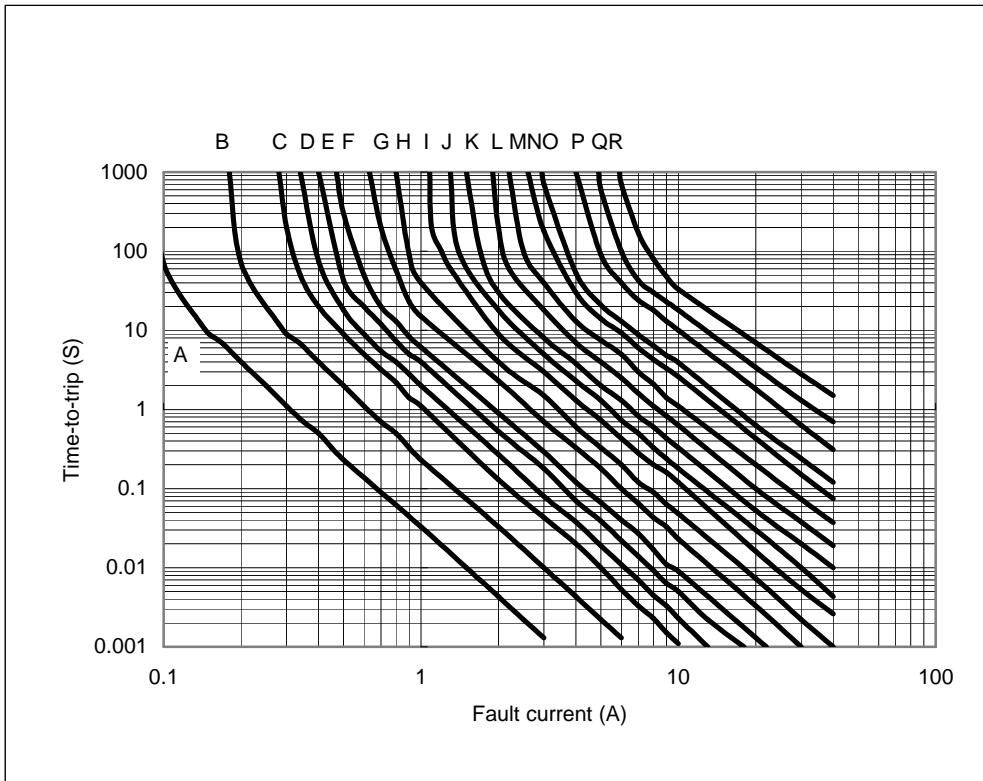
R<sub>MIN</sub>=Minimum device resistance at 23°C.

R<sub>1MAX</sub>=Maximum device resistance at 23°C 1 hour after tripping .



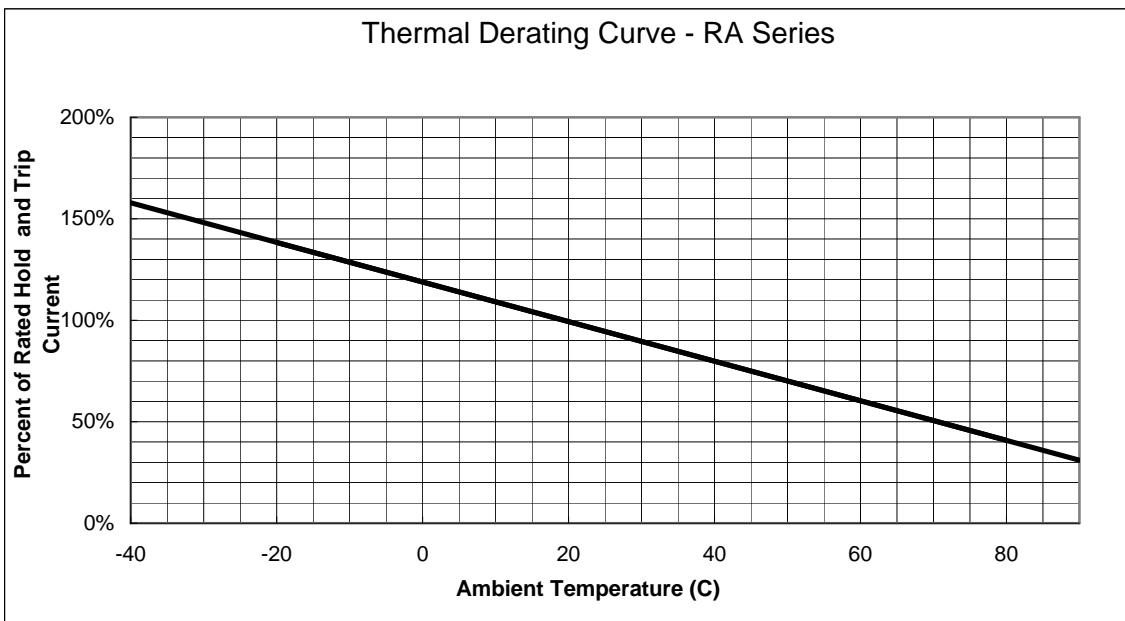
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## ■ Typical time-to-trip-at 23°C



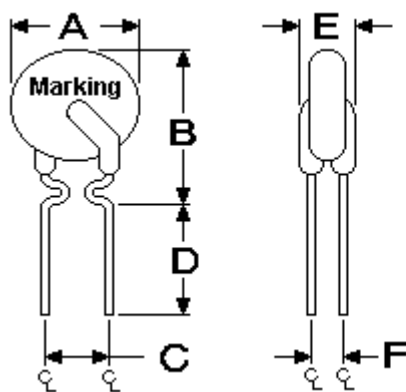
A=RA005-60  
B=RA010-60  
C=RA017-60  
D=RA020-60  
E=RA025-60  
F=RA030-60  
G=RA040-60  
H=RA050-60  
I=RA065-60  
J=RA075-60  
K=RA090-60  
L=RA110-60  
M=RA135-60  
N=RA160-60  
O=RA185-60  
P=RA250-60  
Q=RA300-60  
R=RA375-60

## ■ Thermal Derating Curve

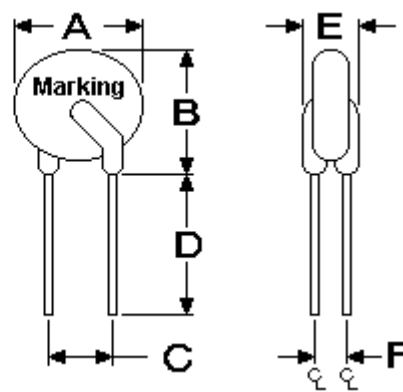


■ RA Product Dimensions (UNIT: mm)

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