RoHS 2002/95/EC

bel *defining a degree of excellence*

Radial Leaded PTC

0ZRA Series

RoHS6 Compliant

0ZRA1007D

Application

High Current Applications

Product Features

Very High Hold Currents, Low DCR Resistance

Operating (Hold Current) Range

3 A ~ 14A

Maximum Voltage

16V

Temperature Range

-40°C to 85°C

Agency Approval

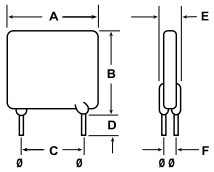
TUV (Std. EN60738-1-1, Cert. R50102187)

UL Component (Std. UL1434, File E305051)

UL Conditions of Acceptability:

1. These devices have been investigated for use in safety circuits and are suitable as a limiting device.

Product Dimensions



All dimensions in mm

Part Number	Lead Size	A	B	C	D	E	F
	ø	Max	Max	Typical	Min	Max	Typical
0ZRA0300FF	0.81	7.1	11.0	5.1	7.6	3.0	1.2
0ZRA0400FF	0.81	8.9	12.8	5.1	7.6	3.0	1.2
0ZRA0500FF	0.81	10.4	14.3	5.1	7.6	3.0	1.2
0ZRA0600FF	0.81	10.7	17.1	5.1	7.6	3.0	1.2
0ZRA0700FF	0.81	11.2	19.7	5.1	7.6	3.0	1.2
0ZRA0800FF	0.81	12.7	20.9	5.1	7.6	3.0	1.2
0ZRA0900FF	0.81	14.0	21.7	5.1	7.6	3.0	1.2
0ZRA1000FF	0.81	16.5	24.1	5.1	7.6	3.0	1.2
0ZRA1100FF	0.81	17.5	26.0	5.1	7.6	3.0	1.2
0ZRA1200FF	1.00	17.5	28.0	10.2	7.6	3.6	1.4
0ZRA1400FF	1.00	27.9	27.9	10.2	7.6	3.6	1.4

Standard Package

P/N	Bulk		Reel / Tape	
	Pcs / Box	P / N Code	Pcs / Reel	P / N Code
0ZRA0300FF	2000	1C	2500	2D
0ZRA0400FF-0600FF	3000	1E	2500	2D
0ZRA0700FF-1400FF	1000	1A	n/a	n/a

Electrical Characteristics (23°C)

	Part Number (Bulk)	Hold Current	Trip Current	Max Time to Trip @ 5xIH	Max Current	Rated Voltage	Typical Power	Resistance Tolerance		
								Rmin	Rmax	R1max
		IH, A	IT, A	Seconds	Imax, A	Vmax, Vdc	Pd, W	Ohms	Ohms	Ohms
A	0ZRA0300FF1C	3	5.1	2.0	100	16	2.3	0.034	0.0530	0.105
B	0ZRA0400FF1E	4	6.8	3.5	100	16	2.4	0.020	0.0350	0.063
C	0ZRA0500FF1E	5	8.5	3.6	100	16	2.6	0.014	0.0210	0.044
D	0ZRA0600FF1E	6	10.2	5.8	100	16	2.8	0.009	0.0160	0.033
E	0ZRA0700FF1A	7	11.9	8.0	100	16	3.0	0.006	0.0130	0.021
F	0ZRA0800FF1A	8	13.6	9.0	100	16	3.0	0.005	0.0110	0.018
G	0ZRA0900FF1A	9	15.3	12.0	100	16	3.3	0.004	0.0085	0.015
H	0ZRA1000FF1A	10	17.0	12.5	100	16	3.3	0.003	0.0075	0.012
I	0ZRA1100FF1A	11	18.7	13.5	100	16	3.7	0.003	0.0065	0.010
J	0ZRA1200FF1A	12	20.4	16.0	100	16	4.2	0.002	0.0055	0.009
K	0ZRA1400FF1A	14	23.8	20.0	100	16	4.6	0.002	0.0045	0.008

IH Hold current-maximum current at which the device will not trip in still air at 23°C.
IT Trip current-minimum current at which the device will always trip in still air at 23°C.
Imax Maximum fault current device can withstand without damage at rated voltage (Vmax).
Vmax Maximum voltage device can withstand without damage at its rated current.
Pd Typical power dissipated by device when in tripped state in 23°C still air environment.
Rmin Minimum device resistance at 23°C.
Rmax Maximum device resistance at 23°C.
R1max Maximum device resistance at 23°C, 1 hour after initial device trip.

Physical specifications

Lead material

0ZRA0300 ~ 0ZRA1100 - Tin plated copper, 20 AWG.
0ZRA1200 ~ 0ZRA1400 - Tin plated copper, 18 AWG.

Soldering characteristics

MIL-STD-202, Method 208E.

Insulating coating

Flame retardant epoxy, meets UL-94-V-0 requirements.

PTC Marking

"bel" or **"b"**, IH code and **"RA"**.

Specifications subject to change without notice

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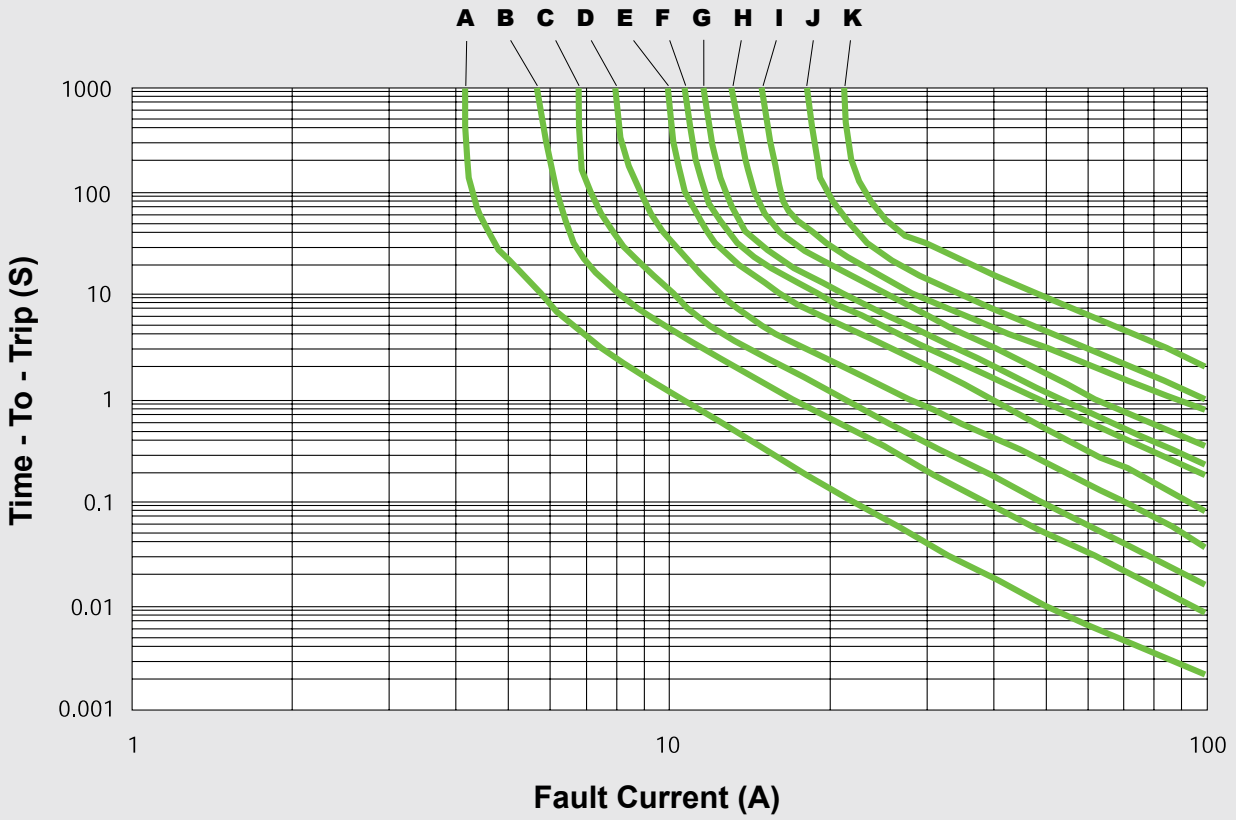
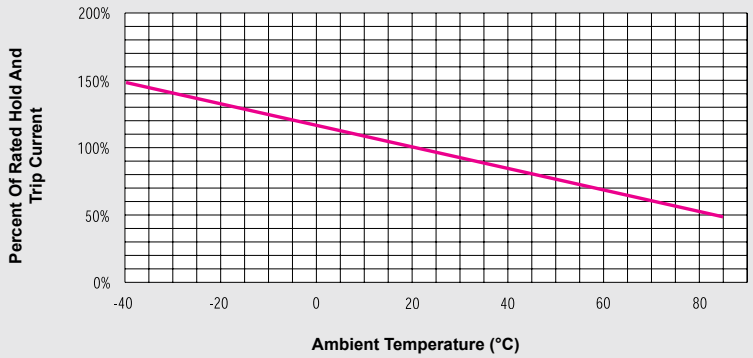
Typical Time - To - Trip at 23°C

(See Elec. Characteristics Table for P/N - Curve Correlation)



Thermal Derating Curve



Cautionary Notes

1. Operation beyond the specified maximum ratings or improper use may result in damage and possible electrical arcing and/or flame.
2. These Polymer PTC (PPTC) devices are intended for protection against occasional overcurrent/ overtemperature fault conditions and may not be suitable for use in applications where repeated and/ or prolonged fault conditions are anticipated.
3. Avoid contact of PTC device with chemical solvent. Prolonged contact may adversely impact the PTC performance.
4. These PTC devices may not be suitable for use in circuits with a large inductance, as the PTC trip can generate circuit voltage spikes above the PTC rated voltage.

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