RoHS 2002/95/EC

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Radial Leaded PTC

0ZRB Series

RoHS6 Compliant

0ZRB1007D


Application

Electronic applications

Product Features

Low DCR Resistance, High Hold Currents

Operating (Hold Current) Range

900mA ~ 9A

Maximum Voltage

30V

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

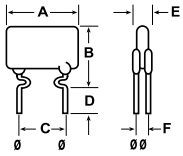

Fig 1

All dimensions in mm

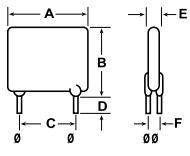

Fig 2

Part Number	Fig	Lead Size	A	B	C	D	E	F
		Ø	Max	Max	Typical	Min	Max	Typical
0ZRB0090FF	1	0.51	7.4	12.2	5.1	7.6	3	0.9
0ZRB0110FF	1	0.51	7.4	14.2	5.1	7.6	3	0.9
0ZRB0135FF	1	0.51	8.9	13.5	5.1	7.6	3	0.9
0ZRB0160FF	1	0.51	8.9	15.2	5.1	7.6	3	0.9
0ZRB0185FF	1	0.51	10.2	15.7	5.1	7.6	3	0.9
0ZRB0250FF	1	0.51	11.4	18.3	5.1	7.6	3	0.9
0ZRB0300FF	2	0.81	11.4	17.3	5.1	7.6	3	1.2
0ZRB0400FF	2	0.81	14.0	20.1	5.1	7.6	3	1.2
0ZRB0500FF	2	0.81	14.0	24.9	10.2	7.6	3	1.2
0ZRB0600FF	2	0.81	16.5	24.9	10.2	7.6	3	1.2
0ZRB0700FF	2	0.81	19.1	26.7	10.2	7.6	3	1.2
0ZRB0800FF	2	0.81	21.6	29.2	10.2	7.6	3	1.2
0ZRB0900FF	2	0.81	24.1	29.7	10.2	7.6	3	1.2

Standard Package

P/N	Bulk		Reel / Tape	
	Pcs / Box	P / N Code	Pcs / Reel	P / N Code
0ZRB0090FF-0110FF	2000	1C	3000	2E
0ZRB0135FF-0250FF	3000	1E	3000	2E
0ZRB0300FF-0400FF	1000	1A	1500	2B
0ZRB0500FF-0900FF	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	0ZRB0090FF1C	0.90	1.8	5.9	40	30	0.6	0.07	0.160	0.22
B	0ZRB0110FF1C	1.10	2.2	6.6	40	30	0.7	0.05	0.140	0.17
C	0ZRB0135FF1E	1.35	2.7	7.3	40	30	0.8	0.04	0.095	0.13
D	0ZRB0160FF1E	1.60	3.2	8.0	40	30	0.9	0.03	0.080	0.11
E	0ZRB0185FF1E	1.85	3.7	8.7	40	30	1.0	0.03	0.070	0.09
F	0ZRB0250FF1E	2.50	5.0	10.3	40	30	1.2	0.02	0.050	0.07
G	0ZRB0300FF1A	3.00	6.0	10.8	40	30	2.0	0.02	0.050	0.08
H	0ZRB0400FF1A	4.00	8.0	12.7	40	30	2.5	0.01	0.035	0.05
I	0ZRB0500FF1A	5.00	10.0	14.5	40	30	3.0	0.01	0.022	0.05
J	0ZRB0600FF1A	6.00	12.0	16.0	40	30	3.5	0.005	0.018	0.04
K	0ZRB0700FF1A	7.00	14.0	17.5	40	30	3.8	0.005	0.015	0.03
L	0ZRB0800FF1A	8.00	16.0	18.8	40	30	4.0	0.005	0.012	0.02
M	0ZRB0900FF1A	9.00	18.0	20.0	40	30	4.2	0.005	0.011	0.02

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

0ZRB0090 ~ 0ZRB0250 - Tin plated copper clad steel, 24 AWG.
0ZRB0300 ~ 0ZRB0900 - Tin plated copper, 20 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 **"RB"**.

Specifications subject to change without notice

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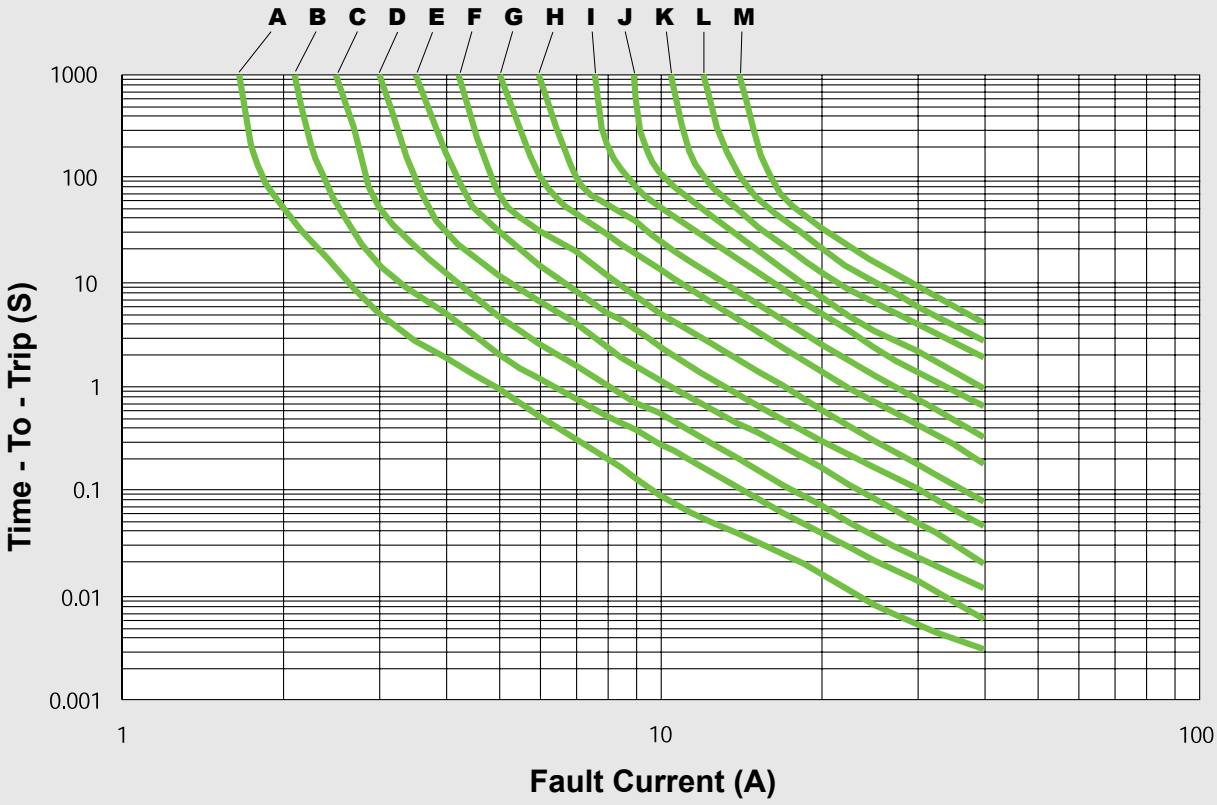
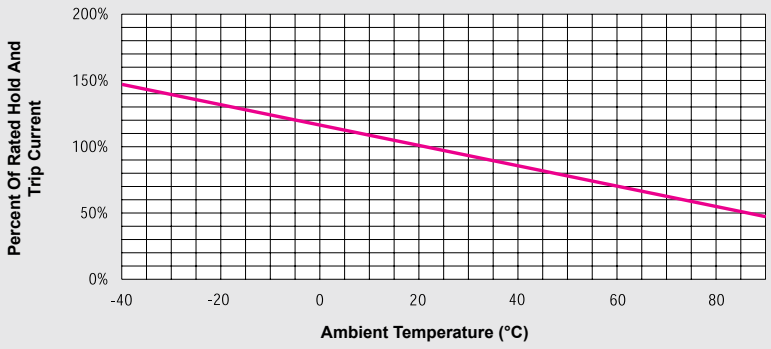
Typical Time - To - Trip at 23°C

(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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