RoHS 2002/9

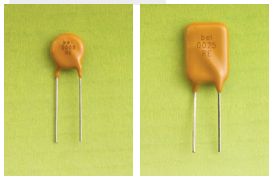
defining a degree of excellence

Radial Leaded PTC

0ZRE Series

RoHS6 Compliant

0ZRE1006D



Application

Line Voltage Power Supply, Transformer and Appliances

Product Features

Continuous Use at Voltages up to 240V AC/DC, Low Hold Current, 265V AC/DC Max Interrupt Voltage

Operating (Hold Current) Range

50mA ~ 550mA

Maximum Operating Voltage

240VAC/DC

Maximum Interrupt Voltage

265VAC/DC

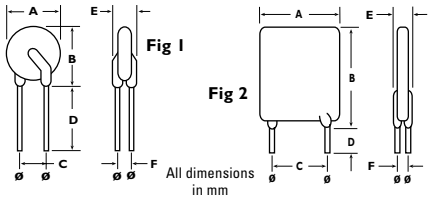
Temperature Range

-40°C to 85°C

Agency Approval

UL Component (E305051)

Product Dimensions



Part Number	Fig	Lead Size	A	B	C	D	E
		ø	Max	Max	Typical	Min	Max
0ZRE0005 to 0ZRE0012	1	0.51	8.3	10.7	5.1	7.6	3.8
0ZRE0016	1	0.51	9.9	12.5	5.1	7.6	3.8
0ZRE0025	2	0.65	9.6	17.4	5.1	7.6	3.8
0ZRE0033	2	0.65	11.4	16.5	5.1	7.6	3.8
0ZRE0040	2	0.65	11.5	19.5	5.1	7.6	3.8
0ZRE0055	2	0.81	14.0	21.7	5.1	7.6	4.1

Standard Package

P/N	Bulk		Reel/Tape	
	Pcs/Box	P/N Code	Pcs/Reel	P/N Code
0ZRE0005-0016	2000	1C	2000	2C
0ZRE0025	3000	1E	1500	2B
0ZRE0033-0040	1000	1A	1500	2B
0ZRE0055	1000	1A	1000	2A

Electrical Characteristics (23 ^{0}C)

	Part Number	Hold Current	Trip Current	Max Time to Trip @ 5xIH	Max Current	Rated Voltage	Typical Power	Resistance Tolerance		
								R_{min}	R_{max}	$R1_{max}$
		I_H, A	I_T, A	Seconds	I_{max}, A	V_{max}, V_{dc}	P_d, W	Ohms	Ohms	Ohms
A	0ZRE0005	0.05	0.12	15.0	1.0	240	0.7	18.50	31.00	65.00
B	0ZRE0008	0.08	0.19	15.0	1.2	240	0.8	7.40	12.00	26.00
C	0ZRE0012	0.12	0.30	15.0	1.2	240	1.0	3.00	6.50	12.00
D	0ZRE0016	0.16	0.37	15.0	2.0	240	1.4	2.50	4.10	7.80
E	0ZRE0025	0.25	0.56	18.5	3.5	240	1.5	1.30	2.10	3.80
F	0ZRE0033	0.33	0.74	18.5	4.5	240	1.7	0.83	1.24	2.60
G	0ZRE0040	0.40	0.90	24.0	5.5	240	2.0	0.60	0.97	1.90
H	0ZRE0055	0.55	1.25	26.0	7.0	240	3.4	0.45	0.73	1.45

I_H Hold current-maximum current at which the device will not trip in still air at 23°C.
I_T Trip current-minimum current at which the device will always trip in still air at 23°C.
I_{max} Maximum fault current device can withstand without damage at rated voltage (Vmax).
V_{max} Maximum voltage device can withstand without damage at its rated current.
P_d 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_{max} Maximum device resistance at 23°C.
$R1_{max}$ Maximum device resistance at 23°C, 1 hour after initial device trip.

Physical specifications

Lead material

0ZRE0005 ~ 0ZRE0016 - Tin plated copper, 24AWG.
0ZRE0025 ~ 0ZRE0040 - Tin plated copper, 22AWG.
0ZRE0055 - Tin plated copper, 20AWG.

Soldering characteristics

MIL-STD-202, Method 208E.

Insulating coating

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

PTC Marking

"**bel**" or "**b**", I_H code and "**RE**".

Specifications subject to change without notice

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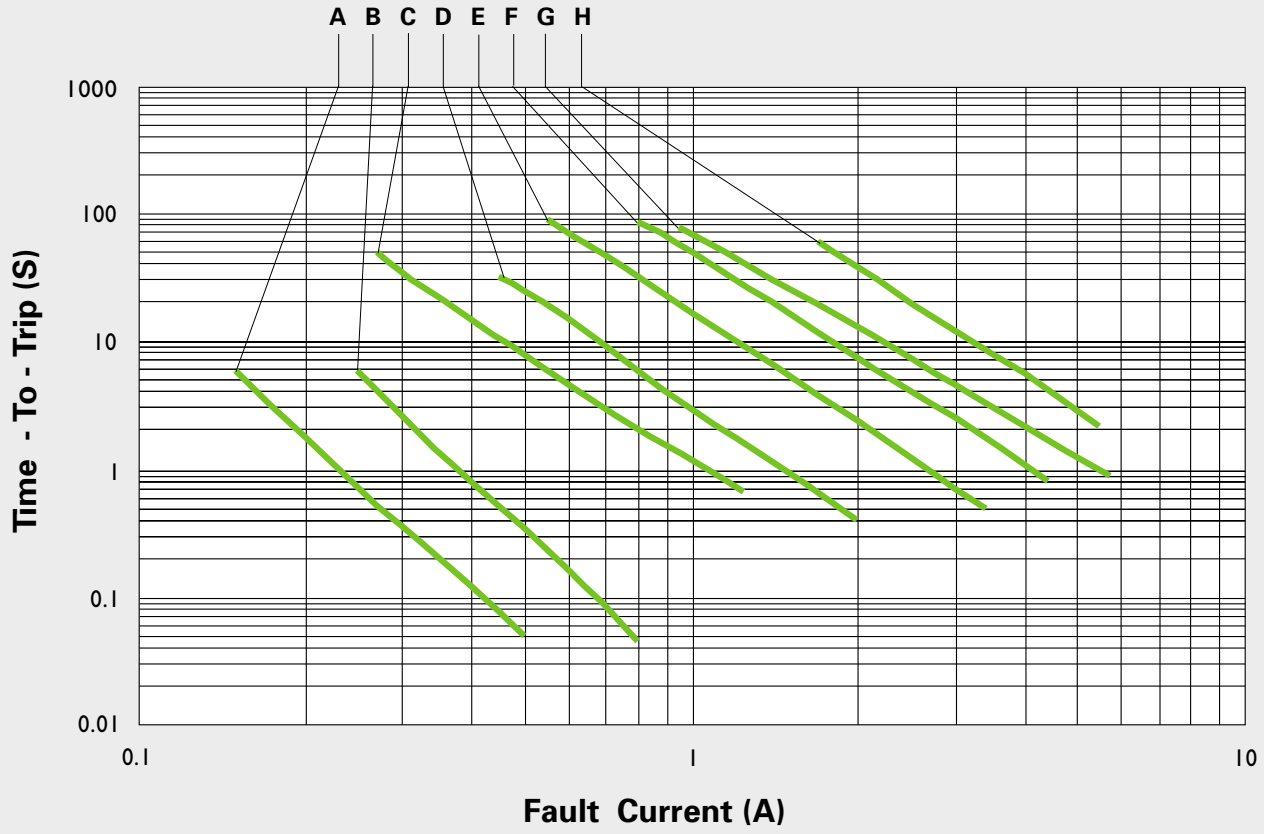
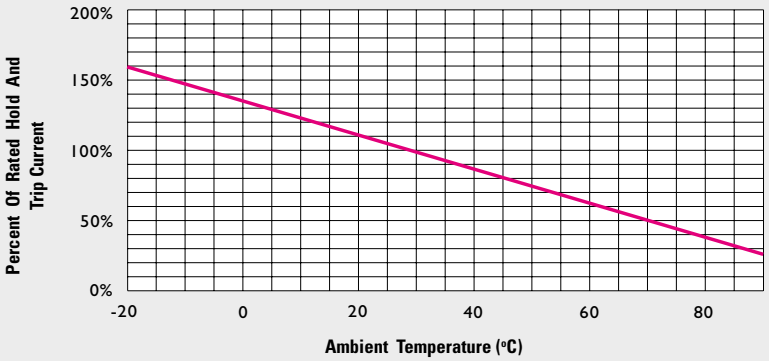
Typical Time -To - Trip at 23 ^{0} C

(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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