RoHS 2002/95/EC

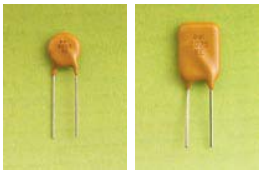
bel *defining a degree of excellence*

Radial Leaded PTC

0ZRE Series

RoHS6 Compliant

0ZRE1007D



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

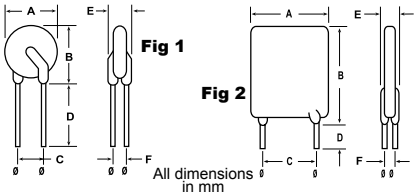
Agency Approval

TUV (Std. EN60738-1-1, Cert. R50102173)
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



Part Number	Fig	Lead Size	A	B	C	D	E	F
		∅	Max	Max	Typical	Min	Max	Typical
0ZRE0005FF to 0ZRE0012FF	1	0.51	8.3	10.7	5.1	7.6	3.8	1.4
0ZRE0016FF	1	0.51	9.9	12.5	5.1	7.6	3.8	1.4
0ZRE0025FF	2	0.65	9.6	17.4	5.1	7.6	3.8	1.4
0ZRE0033FF	2	0.65	11.4	16.5	5.1	7.6	3.8	1.4
0ZRE0040FF	2	0.65	11.5	19.5	5.1	7.6	3.8	1.4
0ZRE0055FF	2	0.81	14.0	21.7	5.1	7.6	4.1	1.4

Standard Package

P/N	Bulk		Reel/Tape	
	Pcs/Box	P/N Code	Pcs/Reel	P/N Code
0ZRE0005FF-0016FF	2000	1C	2000	2C
0ZRE0025FF	3000	1E	1500	2B
0ZRE0033FF-0040FF	1000	1A	1500	2B
0ZRE0055FF	1000	1A	1000	2A

Electrical Characteristics (23°C)

	Part Number (Bulk)	Hold Current	Trip Current	Max Time to Trip @ 5xI_H	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}, $V_{ac/dc}$	P_d, W	Ohms	Ohms	Ohms
A	0ZRE0005FF1C	0.05	0.12	15.0	1.0	240	0.7	18.50	31.00	65.00
B	0ZRE0008FF1C	0.08	0.19	15.0	1.2	240	0.8	7.40	12.00	26.00
C	0ZRE0012FF1C	0.12	0.30	15.0	1.2	240	1.0	3.00	6.50	12.00
D	0ZRE0016FF1C	0.16	0.37	15.0	2.0	240	1.4	2.50	4.10	7.80
E	0ZRE0025FF1E	0.25	0.56	18.5	3.5	240	1.5	1.30	2.10	3.80
F	0ZRE0033FF1A	0.33	0.74	18.5	4.5	240	1.7	0.83	1.24	2.60
G	0ZRE0040FF1A	0.40	0.90	24.0	5.5	240	2.0	0.60	0.97	1.90
H	0ZRE0055FF1A	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 by device when in 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 clad steel, 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

Bel Fuse Inc. 206 Van Vorst Street, Jersey City, NJ 07302 • Tel:201 - 432 - 0463 • Fax:201 - 432 - 9542 • E-Mail: belfuse@belfuse.com
Website:www.belfuse.com

Radial Leaded PTC

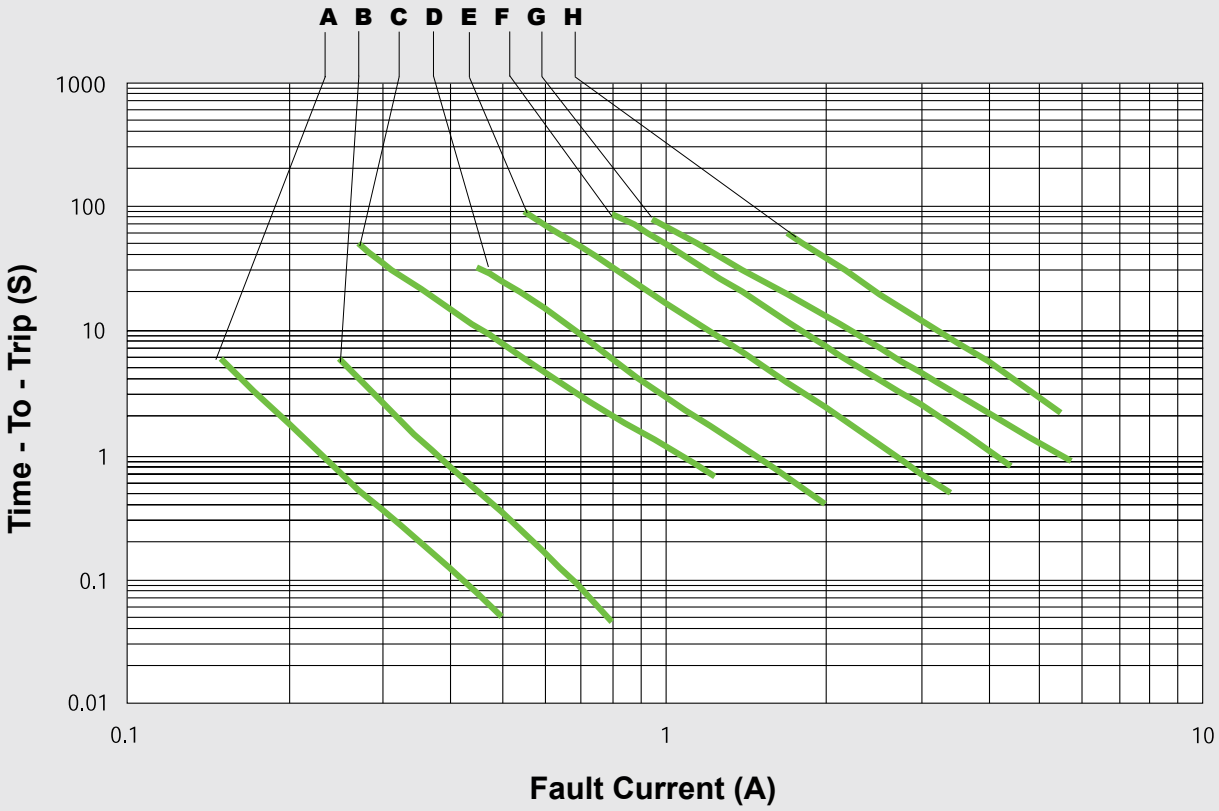
0ZRE Series

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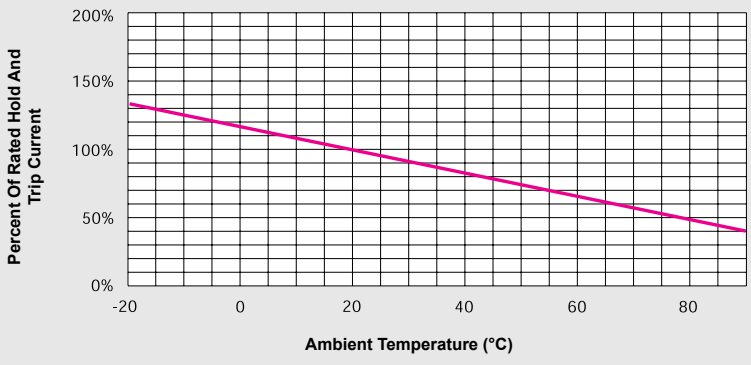
0ZRE1007C

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.

Specifications subject to change without notice

Corporate Office
Bel Fuse Inc.
206 Van Vorst Street, Jersey City, NJ 07302
Tel: 201-432-0463
Fax: 201-432-9542
E-Mail: belfuse@belfuse.com
Website: www.belfuse.com

Far East Office
Bel Fuse Ltd.
8F/8 Luk Hop Street
San Po Kong
Kowloon, Hong Kong
Tel: 852-2328-5515
Fax: 852-2352-3706

European Office
Bel Stewart GmbH
Industriestrasse 20
61381 Friedrichdorf
Germany
Tel: 49.6172.9552.0
Fax: 49.6172.9552.40