RoHS 2002/95/EC

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Radial Leaded PTC

0ZRC Series

RoHS6 Compliant

0ZRC1007D

Application

Telecom and wide variety of electronic equipment

Product Features

Low Hold Current, 90V rating - replaces 30, 60 and 72V rated devices

Operating (Hold Current) Range

100mA ~ 3.75A

Maximum Voltage

Up to 90V

Temperature Range

-40°C to 85°C

Agency Approval

TUV (Std. EN60738-1-1, Cert. R50102187, Part No. 0ZRC0040-0ZRC0375)

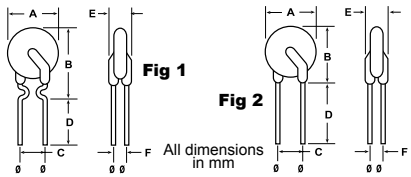
UL Component (Std. UL1434, File E305051)

UL Conditions of Acceptability:

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

2.These devices have been calibrated to limit the current to 8 amps within 5 seconds, per ANSI/NFPA 70, "National Electrical Code"

Product Dimensions



Part Number	Fig	Lead Size	A	B	C	D	E	F
		∅	Max	Max	Typical	Min	Max	Typical
0ZRC0010FF-0025FF	1	0.51	7.4	12.7	5.1	7.6	3.1	1.1
0ZRC0030FF	1	0.51	7.4	13.0	5.1	7.6	3.1	1.1
0ZRC0035FF	1	0.51	7.4	12.7	5.1	7.6	3.1	1.1
0ZRC0040FF	1	0.51	7.6	13.5	5.1	7.6	3.1	1.1
0ZRC0050FF	1	0.51	7.9	13.7	5.1	7.6	3.1	1.1
0ZRC0055FF	1	0.51	9.7	14.0	5.1	7.6	3.1	1.1
0ZRC0065FF	1	0.51	9.7	14.5	5.1	7.6	3.1	1.1
0ZRC0075FF	1	0.51	10.4	15.2	5.1	7.6	3.1	1.1
0ZRC0090FF	1	0.51	11.7	15.8	5.1	7.6	3.1	1.1
0ZRC0110FF	2	0.81	13.0	18.0	5.1	7.6	3.1	1.4
0ZRC0135FF	2	0.81	14.5	19.6	5.1	7.6	3.1	1.4
0ZRC0160FF	2	0.81	16.3	21.3	5.1	7.6	3.1	1.4
0ZRC0185FF	2	0.81	17.8	22.9	5.1	7.6	3.1	1.4
0ZRC0250FF	2	0.81	21.3	26.4	10.2	7.6	3.1	1.4
0ZRC0300FF	2	0.81	24.9	30.0	10.2	7.6	3.1	1.4
0ZRC0375FF	2	0.81	28.5	33.5	10.2	7.6	3.1	1.4

Standard Package

P/N	Bulk		Reel/Tape	
	Pcs/Box	P/N Code	Pcs/Reel	P/N Code
0ZRC0010FF-0090FF	3000	1E	3000	2E
0ZRC0110FF-0185FF	1000	1A	1500	2B
0ZRC0250FF-0375FF	1000	1A	n/a	n/a

Electrical Characteristics (23°C)

	Part Number (Bulk)	Hold Current	Trip Current	Max Time to Trip @ 5xIH	Max Time to Trip @ 8A (See UL Note 2)	Max Current	Rated Voltage	Typical Power	Resistance Tolerance		
		I_H, A	I_T, A	Seconds	Seconds	I_{max}, A	V_{max}, V_{dc}	P_d, W	R_{min} Ohms	R_{max} Ohms	$R1_{max}$ Ohms
A	0ZRC0010FF1E	0.10	0.20	4.0	0.001	40	90	0.38	2.50	6.000	7.50
B	0ZRC0015FF1E	0.15	0.35	10.0	0.002	40	90	0.70	2.40	5.500	7.00
C	0ZRC0017FF1E	0.17	0.34	3.0	0.003	40	90	0.48	2.00	3.720	8.00
D	0ZRC0020FF1E	0.20	0.40	2.2	0.005	40	90	0.41	1.83	3.300	4.40
E	0ZRC0025FF1E	0.25	0.50	2.5	0.010	40	90	0.45	1.25	2.280	3.00
F	0ZRC0030FF1E	0.30	0.60	3.0	0.020	40	90	0.49	0.88	1.596	2.10
G	0ZRC0035FF1E	0.35	0.75	10.0	0.050	40	90	1.30	0.70	1.300	2.50
H	0ZRC0040FF1E	0.40	0.80	3.8	0.050	40	90	0.56	0.55	1.032	1.29
I	0ZRC0050FF1E	0.50	1.00	4.0	0.100	40	90	0.77	0.50	0.770	1.17
J	0ZRC0055FF1E	0.55	1.20	10.0	0.200	40	90	1.50	0.40	0.720	1.50
K	0ZRC0065FF1E	0.65	1.30	5.3	0.200	40	90	0.88	0.31	0.520	0.72
L	0ZRC0075FF1E	0.75	1.50	6.3	0.400	40	90	0.92	0.25	0.400	0.60
M	0ZRC0090FF1E	0.90	1.80	7.2	0.600	40	90	0.99	0.20	0.330	0.47
N	0ZRC0110FF1A	1.10	2.20	8.2	1.000	40	90	1.50	0.15	0.300	0.38
O	0ZRC0135FF1A	1.35	2.70	9.6	2.000	40	90	1.70	0.12	0.228	0.30
P	0ZRC0160FF1A	1.60	3.20	11.4	----	40	90	1.90	0.09	0.180	0.22
Q	0ZRC0185FF1A	1.85	3.70	12.6	----	40	90	2.10	0.08	0.144	0.19
R	0ZRC0250FF1A	2.50	5.00	15.6	----	40	90	2.50	0.05	0.096	0.13
S	0ZRC0300FF1A	3.00	6.00	19.8	----	40	90	2.80	0.04	0.072	0.10
T	0ZRC0375FF1A	3.75	7.50	24.0	----	40	90	3.20	0.03	0.060	0.08

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

0ZRC0010 - 0ZRC0040 - Tin plated copper clad steel, 24 AWG.
0ZRC0050 - 0ZRC0090 - Tin plated copper, 24 AWG.
0ZRC0110 - 0ZRC0375 - 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"**, I_H code and **"RC"**.

Specifications subject to change without notice

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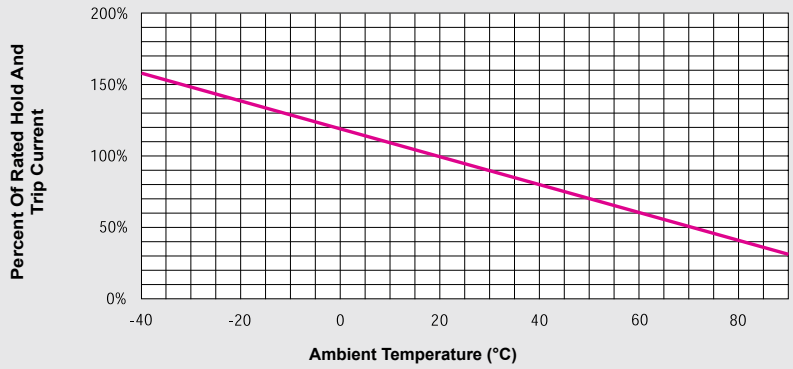
0ZRC1007C

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 pos sible 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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