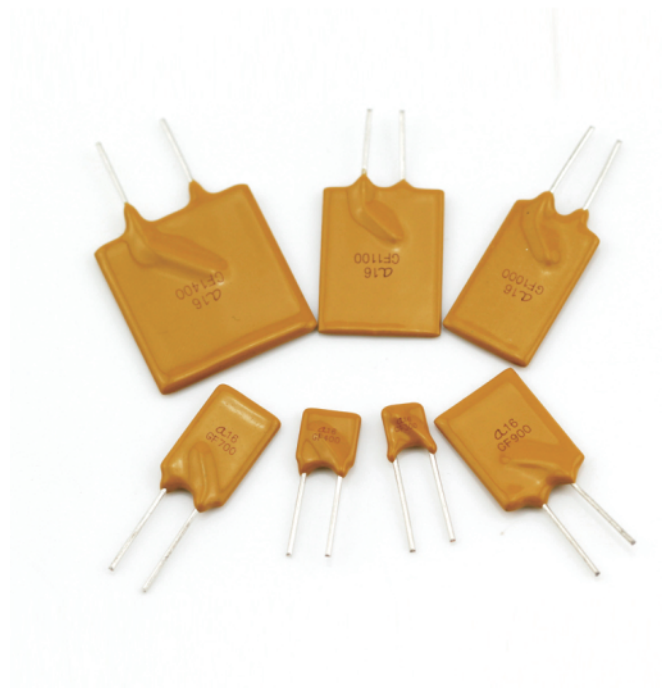


Description

The ASIM 16R Series is designed to provide overcurrent protection to 16Vdc maximum voltage with a maximum 100A short circuit rating.

Features

- 16Vdc max voltage w/max 100A short circuit rating
- RoHS compliant, Lead-Free and HalogenFree*
- Resettable feature
- Ideal for a broad range of general electronics using a low voltage power supply



Applications

- Load protection on wide range of low voltage power supplies
- Computers
- Computers peripherals
- General electronics

Performance Specification

Model	V_{max} (V dc)	I_{max} (A)	I_{hold} @25°C (A)	I_{trip} @25°C (A)	P_d Typ. (W)	Maximum Time To Trip		Resistance		
						Current (A)	Time (Sec)	$R_{i min}$ (Ω)	$R_{i max}$ (Ω)	R_{1max} (Ω)
16R030	16	40	0.30	0.60	0.30	1.50	1.00	0.300	0.900	1.30
16R050	16	40	0.50	1.00	0.40	2.50	1.10	0.200	0.500	0.76
16R065	16	40	0.65	1.30	0.60	3.25	5.00	0.120	0.480	0.65
16R075	16	40	0.75	1.50	0.30	3.75	4.80	0.100	0.320	0.40
16R090	16	40	0.90	1.80	0.60	4.50	1.20	0.090	0.180	0.25
16R110	16	40	1.10	2.20	0.70	5.50	2.30	0.060	0.150	0.24
16R120	16	40	1.20	2.40	0.60	6.00	5.50	0.050	0.180	0.24
16R135	16	40	1.35	2.70	0.80	6.75	4.50	0.040	0.130	0.19
16R160	16	40	1.60	3.20	0.90	8.00	9.00	0.030	0.110	0.20
16R185	16	40	1.85	3.70	1.00	9.25	10.0	0.030	0.100	0.16
16R200	16	40	2.00	4.00	2.40	10.0	15.0	0.018	0.075	0.14
16R250	16	40	2.50	5.00	1.30	7.50	15.0	0.020	0.070	0.12
16R300	16	40	3.00	5.10	2.30	15.0	2.00	0.020	0.070	0.11
16R400	16	40	4.00	6.80	2.40	20.0	3.50	0.020	0.040	0.08
16R500	16	40	5.00	8.50	2.60	25.0	3.60	0.014	0.025	0.033
16R600	16	40	6.00	10.20	2.80	30.0	5.80	0.001	0.021	0.031
16R700	16	40	7.00	11.90	3.00	35.0	8.00	0.008	0.015	0.022
16R800	16	40	8.00	13.60	3.00	40.0	9.00	0.006	0.013	0.021
16R900	16	40	9.00	15.30	3.30	45.0	12.0	0.004	0.012	0.018
16R1000	16	40	10.00	17.00	3.60	50.0	12.5	0.004	0.011	0.015
16R1100	16	40	11.00	18.70	3.70	55.0	13.5	0.003	0.009	0.013
16R1200	16	40	12.00	20.40	4.20	60.0	16.0	0.003	0.008	0.012
16R1400	16	40	14.00	23.80	4.60	70.0	20.0	0.003	0.007	0.011

I_{hold} = Hold Current. Maximum current device will not trip in 25°C still air.

I_{trip} = Trip Current. Minimum current at which the device will always trip in 25°C still air.

V_{max} = Maximum operating voltage device can withstand without damage at rated current (I_{max}).

I_{max} = Maximum fault current device can withstand without damage at rated voltage (V_{max}).

P_d = Power dissipation when device is in the tripped state in 25°C still air environment at rated voltage.

$R_{i min/max}$ = Minimum/Maximum device resistance prior to tripping at 25°C.

R_{1max} = Maximum device resistance is measured one hour post reflow.

CAUTION : Operation beyond the specified ratings may result in damage and possible arcing and flame.

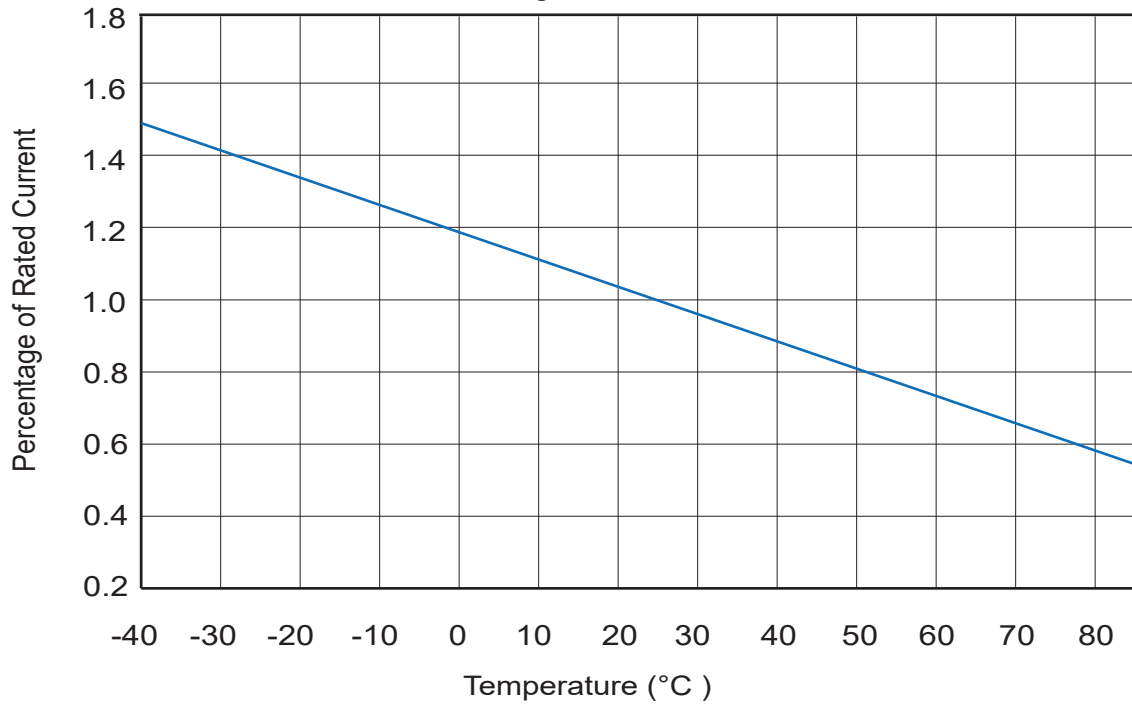
Environmental Specifications

Test	Conditions	Resistance change
Passive aging	+85°C, 1000 hrs.	±5% typical
Humidity aging	+85°C, 85% R.H. , 168 hours	±5% typical
Thermal shock	+85°C to -40°C, 20 times	±33% typical
Resistance to solvent	MIL-STD-202, Method 215	No change
Vibration	MIL-STD-202, Method 201	No change
Ambient operating conditions : - 40 °C to +85 °C		

Maximum surface temperature of the device in the tripped state is 125 °C

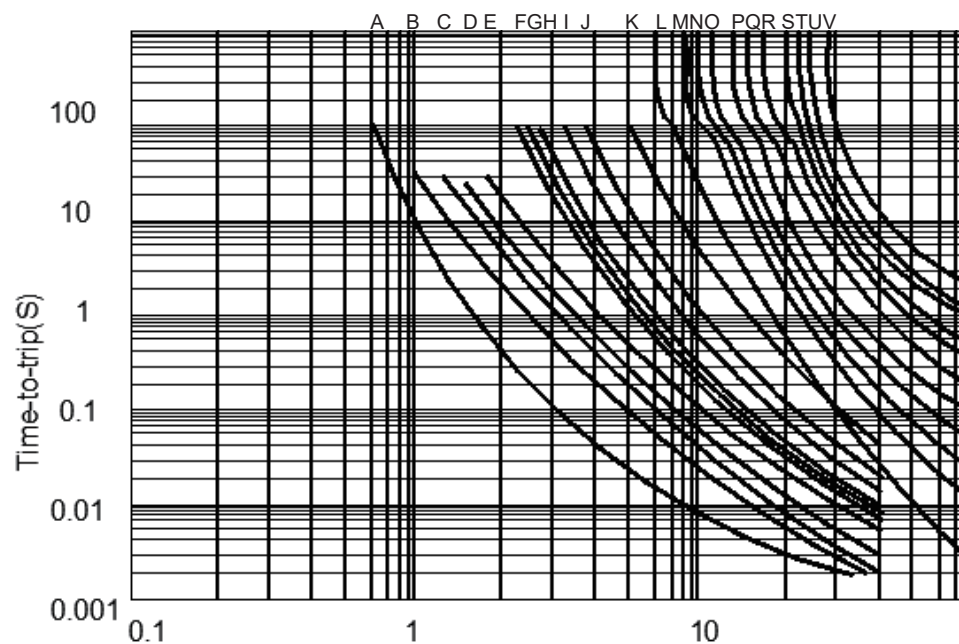
Thermal Derating Curve

Derating Curves for 16R Series

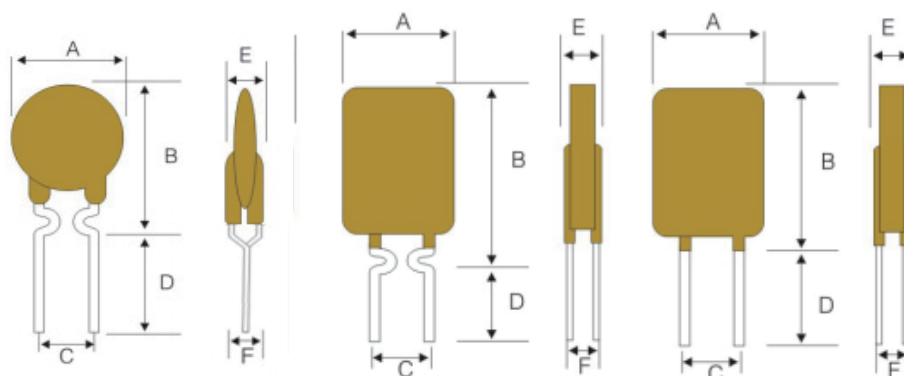


Average Time-Current Curve

A=030
B=050
C=065
D=075
E=090
F=110
G=120
H=135
I=160
J=185
K=250
L=300
M=400
N=500
O=600
P=700
Q=800
R=900
S=1000
T=1100
U=1200
V=1400



Physical Dimensions(mm.)



图片FIG1

图片FIG2

图片FIG3

Model	A Max.	B Max.	C Typ.	D Min.	E Max.	FIG
16R030	5.50	13.0	5.10±0.5	7.6	3.1	1
16R050	5.50	12.0	5.10±0.5	7.6	3.0	1
16R065	6.90	12.0	5.10±0.5	7.6	3.0	1
16R075	7.40	13.0	5.10±0.5	7.6	3.0	1
16R090	7.40	13.0	5.10±0.5	7.6	3.0	1
16R110	7.40	14.4	5.10±0.5	7.6	3.0	1
16R120	7.40	14.4	5.10±0.5	7.6	3.0	2
16R135	8.90	15.9	5.10±0.5	7.6	3.0	2
16R160	8.90	16.7	5.10±0.5	7.6	3.0	2
16R185	10.7	17.7	5.10±0.5	7.6	3.0	2
16R200	8.9	14.8	5.10±0.5	7.6	3.0	2
16R250	9.00	14.0	5.10±0.5	7.6	3.0	2
16R300	9.00	12.0	5.10±0.5	7.6	3.0	3
16R400	10.0	13.0	5.10±0.5	7.6	3.0	3
16R500	10.7	17.5	5.10±0.5	7.6	3.0	3
16R600	13.5	17.5	5.10±0.5	7.6	3.0	3
16R700	13.5	23.0	5.10±0.5	7.6	3.0	3
16R800	13.5	23.0	5.10±0.5	7.6	3.0	3
16R900	15.0	24.0	5.10±0.5	7.6	3.0	3
16R1000	18.0	26.0	5.10±0.5	7.6	3.0	3
16R1100	18.0	26.0	5.10±0.5	7.6	3.0	3
16R1200	22.5	28.0	5.10±0.5	7.6	3.5	3
16R1400	24.5	30.0	10.2±0.5	7.6	3.5	3

PHYSICAL SPECIFICATIONS :

Materials : Leads 16R-030 ~ 250: Tin plated copper-clad steel,24AWG(0.51mm/0.020" Dia.)

16R-300 ~ 1100: Tin plated copper, 20AWG(0.81mm/0.032"Dia)

16R-1200 ~ 1400: Tin plated copper, 18 AWG(1.0mm/0.04" Dia.)

Lead Solderability : MIL-STD-202, Method 208E

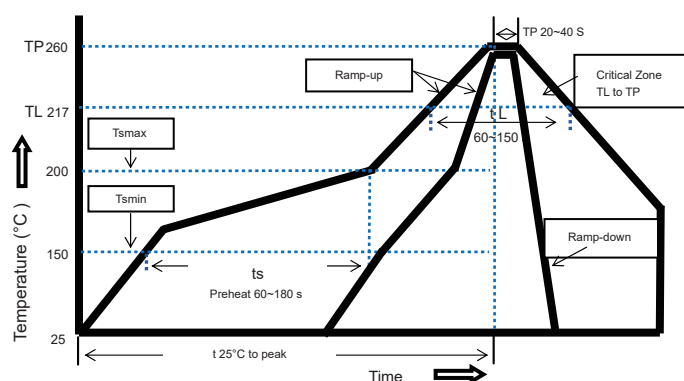
Device Labeling : Device is marked with Logo, amperage rating, voltage rating & date code.

Packaging Quantity

Model	Reel QTY	Bag QTY
16R-030 ~ 16R-600	3000	500
16R-700 ~ 16R-900	1500	500
16R-1000 ~ 16R-1400	-	500

Tape & Reel packaging per EIA468-B standard.

Soldering Parameters



Recommended reflow methods: IR, vapor phase oven, hot air oven, N2 environment for lead-free

Recommended maximum paste thickness is 0.25mm

Devices can be cleaned using standard industry methods and solvents.

Note 1: All temperature refer to topside of the package, measured on the package body surface.

Note 2: If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Profile Feature

Average Ramp-Up Rate
(Ts max to T p)

Preheat

- Temperature Min(Ts min)
- Temperature Max(Ts max)
- Time(Ts min to Ts max)

Time maintained above:

- Temperature(TL)
- Time(tL)

Peak Temperature(Tp)

Ramp-Down Rate

Time 25°C to Peak Temperature

Storage Condition

Pb-Free Assembly

3°C/second max.

150°C

200°C

60~180 seconds

217°C

60~150 seconds

260°C

6°C/second max.

8 minutes max

0°C~35°C, ≤70%RH