



Features

- Radial Leaded Devices
- Cured, flame, retardant epoxy polymer insulating material meets UL 94V-0 requirements
- Bulk packaging, or tape and reel available on most models

Applications

- Almost anywhere there is a low voltage power supply, up to 16V and a load to be protected, including:
- Personal computer
 - Medical electronics
 - Personal care product

R16 Series

Alpha-Top (Sea & Land Alliance)

Model	V _{max} (Vdc)	I _{max} (A)	I _{hold} (A)	I _{trip} (A)	P _d Typ. (W)	Maximum Time To Trip		Resistance			Agency Approval	
						Current (A)	Time (Sec)	Ri min (Ω)	Ri max (Ω)	R1 max (Ω)	UL	TUV
R16-090	16	100	0.90	1.80	0.60	8.00	1.2	0.070	0.1200	0.180		
R16-110	16	100	1.10	2.20	0.70	8.00	2.3	0.050	0.0950	0.140		
R16-135	16	100	1.35	2.70	0.80	8.00	4.5	0.040	0.0740	0.120		
R16-160	16	100	1.60	3.20	0.90	8.00	9.0	0.030	0.0610	0.110		
R16-185	16	100	1.85	3.70	1.00	8.00	10.0	0.030	0.0510	0.090		
R16-250	16	100	2.50	5.00	1.20	12.50	5.0	0.020	0.0350	0.060		
R16-300	16	100	3.00	5.10	2.30	15.00	1.0	0.034	0.0650	0.105		
R16-400	16	100	4.00	6.80	2.40	20.00	1.7	0.020	0.0390	0.063		
R16-500	16	100	5.00	8.50	2.60	25.00	2.0	0.014	0.0230	0.044	✓	
R16-600	16	100	6.00	10.20	2.80	30.00	3.3	0.009	0.0190	0.030	✓	
R16-700	16	100	7.00	11.90	3.00	35.00	3.5	0.006	0.0130	0.021	✓	
R16-800	16	100	8.00	13.60	3.00	40.00	5.0	0.005	0.0110	0.018	✓	
R16-900	16	100	9.00	15.30	3.30	45.00	5.5	0.004	0.0092	0.015	✓	
R16-1000	16	100	10.00	17.00	3.60	50.00	6.0	0.003	0.0071	0.012	✓	
R16-1100	16	100	11.00	18.70	3.70	55.00	7.0	0.003	0.0062	0.010	✓	
R16-1200	16	100	12.00	20.40	4.20	60.00	7.5	0.002	0.0060	0.009	✓	
R16-1300	16	100	13.00	23.00	4.40	65.00	8.5	0.002	0.0060	0.009		
R16-1400	16	100	14.00	23.80	4.60	70.00	9.0	0.002	0.0045	0.008	✓	
R16-1500	16	100	15.00	25.50	4.80	75.00	9.5	0.002	0.0045	0.008		
R16-1600	16	100	16.00	27.20	4.80	80.00	10.0	0.002	0.0045	0.008		

I_{hold} = Hold Current : maximum current device will sustain for 4 hours without tripping in 25°C still air.

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

V_{max} = Maximum 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 dissipated from device when in the tripped state at 25°C still air.

Ri min/max = Minimum/Maximum resistance of device in initial (un-soldered) state.

R1 max = Maximum resistance of device at 25°C measured one hour after tripping.

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., 1000 hrs	±5% typical
Thermal shock	+85°C to -40°C, 20 times	±10% typical
Resistance to solvent	MIL-STD-202, Method 215	No change
Vibration	MIL-STD-202, Method 201	No change
Ambient operating /storage conditions : - 40 °C to +85 °C		
Maximum surface temperature of the device in the tripped state is 125 °C		

Agency Approvals :



E201504(Alpha-Top)/E319079(Sea&Land)

Regulation/Standard:



2002/95/EC



EN14582

PHYSICAL SPECIFICATIONS :

Materials : Leads

R16-090~250 : Tin plated copper-clad steel, 24 AWG (0.51mm/0.020" Dia.)

R16-300~1100 : Tin plated copper, 20 AWG (0.81mm/0.032" Dia.)

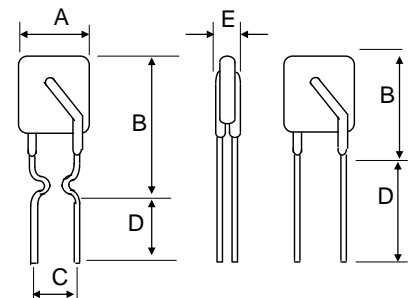
R16-1200~1600 : Tin plated copper, 18 AWG (1.0mm/0.04" Dia.)

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

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

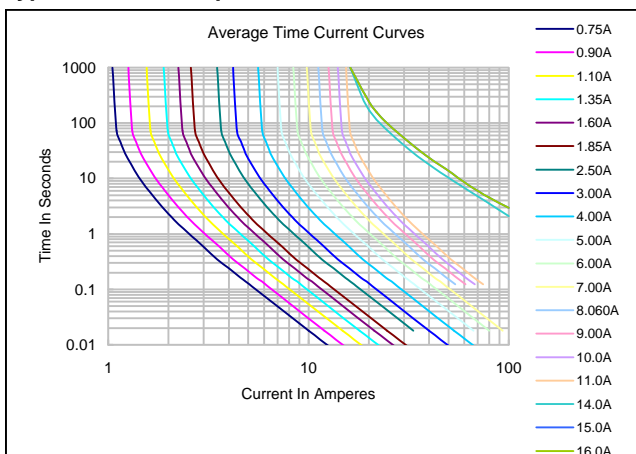
Physical Dimensions (Unit: mm)

Model	A Max.	B Max.	C Typ.	D Min.	E Max.	Lead Style
R16-090	7.40	12.20	5.10	7.6	3	Kink
R16-110	7.40	14.20	5.10	7.6	3	Kink
R16-135	8.90	13.50	5.10	7.6	3	Kink
R16-160	8.90	15.20	5.10	7.6	3	Kink
R16-185	10.20	15.70	5.10	7.6	3	Kink
R16-250	10.40	14.30	5.10	7.6	3	Kink
R16-300	7.10	11.00	5.10	7.6	3	Straight
R16-400	8.90	15.20	5.10	7.6	3	Straight
R16-500	10.40	15.70	5.10	7.6	3	Straight
R16-600	10.70	18.30	5.10	7.6	3	Straight
R16-700	12.70	19.70	5.10	7.6	3	Straight
R16-800	13.40	20.10	5.10	7.6	3	Straight
R16-900	14.00	24.90	5.10	7.6	3	Straight
R16-1000	16.50	24.90	5.10	7.6	3	Straight
R16-1100	17.50	24.90	5.10	7.6	3	Straight
R16-1200	18.50	26.70	10.20	7.6	3.5	Straight
R16-1300	23.50	27.90	10.20	7.6	3.5	Straight
R16-1400	23.50	27.90	10.20	7.6	3.5	Straight
R16-1500	24.10	28.70	10.20	7.6	3.5	Straight
R16-1600	24.10	28.70	10.20	7.6	3.5	Straight

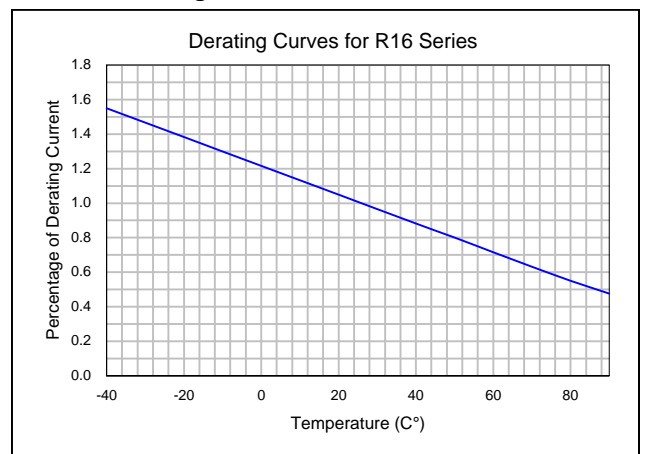


Note : Stand-offs only used for R16-090 ~ R16-250

Typical Time-To-Trip Curve at 25°C



Thermal Derating Curve



Packing :

Model	Reel QTY	Bag QTY
R16-090 ~ R16- 600	3000	500
R16-700 ~ R16- 900	1500	500
R16-1000 ~ R16-1600	-	500

Tape & Reel packaging per EIA468-B standard.

! WARNING:

- Use PPTC beyond the maximum ratings or improper use may result in device damage and possible electrical arcing and flame.
- PPTC are intended for protection against occasional over current or over temperature fault conditions and should not be used when repeated fault conditions or prolonged trip events are anticipated.
- Device performance can be impacted negatively if devices are handled in a manner inconsistent with recommended electronic, thermal, and mechanical procedures for electronic components.
- Use PPTC with a large inductance in circuit will generate a circuit voltage (L di/dt) above the rated voltage of the PPTC.
- Avoid impact PPTC device its thermal expansion like placed under pressure or installed in limited space.