



SEA & LAND ELECTRONIC CORP.

www.sealand-pptc.com

ALPHA-TOP TECHNOLOGY CORP.

www.alpha-top.cn

APPROVAL SHEET

MODEL NO.: R16-160

CUSTOMER:

CUSTOMER'S APPROVAL:

AUTHORIZED SIGNATURE/STAMP:

DATE

MANUFACTURER:

HEAD OFFICE:

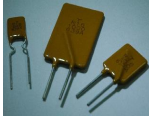
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Submitted by: Chen
Approved by: YC Lin
DATE: 16-Oct-23

SEA & LAND ELECTRONIC CORP.



- 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

R16-160

Alpha-Top (Sea & Land Alliance)

Electrical Properties

Model	V_{max}	I_{max}	I_{hold}	I_{trip}	P_d	Maximum Time To Trip		Resistance		Agency Approval	
	(Vdc)	(A)	(A)	(A)	Typ. (W)	Current (A)	Time (Sec)	$R_{i_{min}}$ (Ω)	$R_{1_{max}}$ (Ω)	UL	TUV
R16-160	16	100	1.60	3.20	0.90	8.00	9.0	0.0300	0.1100		

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 Operating} = Maximum operating voltage (Vdc) device can withstand without damage at rated current.

V_{max Interrupt} = Maximum interrupt voltage (Vac) device can withstand without damage at rated current.

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

R_{imin/max} = Minimum/Maximum device resistance prior to tripping at 25°C

R_{1max} = Maximum device resistance one hour after it is tripped at 25°C.

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

Environmental Specifications

Test	Conditions
Passive aging	+85°C, 1000 hrs
Humidity aging	+85°C, 85% R.H., 1000 hrs
Thermal shock	+85°C to -40°C, 20 times
Resistance to solvent	MIL-STD-202, Method 215
Vibration	MIL-STD-202, Method 201
Ambient operating /storage conditions : - 40 °C to +85 °C	
Maximum surface temperature of the device in the tripped state is 125 °C	
In case of special use, please contact our engineer	

Agency Approvals :

Regulation/Standard:



2015/863/EU

EN14582



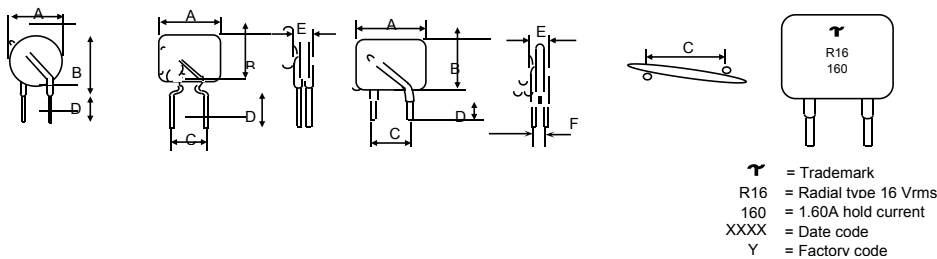
WARNING:

- 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 ($L \cdot di/dt$) above the rated voltage of the PPTC.
- Avoid impact PPTC device its thermal expansion like placed under pressure or installed in limited space.

Physical Dimensions (Unit: mm/inch)

Model	A Max.	B Max.	C Typ.	D Min.	E Max.	E Max.	Lead Style
R16-160	8.90	15.20	5.10	7.6	3.0	1.2	Kink

Dimensions

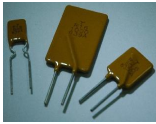


Physical Characteristics

Lead Material :

R16-090 ~ 250: Tin-plated copper-clad steel, 0.205mm² (24AWG), Φ 0.51mm(0.020 in).
R16-300 ~ 1100: Tin-plated copper, 0.52mm² (20AWG), Φ 0.81mm(0.032 in).
R16-1100 ~ 1600: Tin-plated copper, 0.79mm² (20AWG), Φ 1.0mm(0.039 in).
Lead Solderability : MIL-STD-202, Method 208

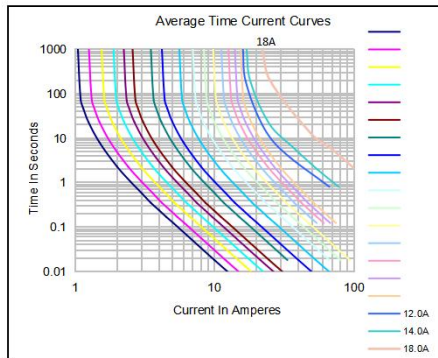
0	7.40	10.20	5.10	7.60	3.00	3.00	1.2	Straight
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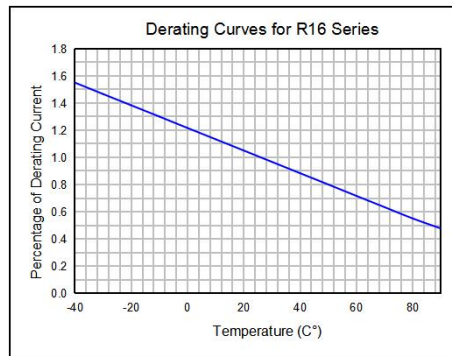
R16-160

Alpha-Top (Sea & Land Alliance)

Typical Time-To-Trip Curve at 25°C



Thermal Derating Curve



I_{hold} versus temperature

Model	Maximum ambient operating temperature (T_{mao}) vs. hold current (I_{hold})								
	-40°C	-20°C	0°C	25°C	40°C	50°C	60°C	70°C	85°C
R16-160	2.37	2.13	1.87	1.60	1.36	1.23	1.09	0.94	0.75

Packing :

Model	Reel QTY	Bag QTY
R16-160		500

Tape & Reel packaging per EIA468-B standard.

Labeling Information

