



SEA & LAND ELECTRONIC CORP.

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ALPHA-TOP TECHNOLOGY CORP.

WWW.ALPHA-TOP.CN

APPROVAL SHEET

MODEL NO.: R30-050

CUSTOMER:

CUSTOMER'S APPROVAL:

AUTHORIZED SIGNATURE/STAMP:

DATE

MANUFACTURER:

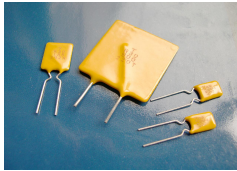
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Submitted by: Chen
Approved by: YC Lin
DATE: 10-Jan-22



R30-050

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 60V and a load to be protected, including:
- Industrial controls
 - Automotive electronics
 - Medical products

Alpha-Top (Sea & Land Alliance)

Electrical Properties

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)	R _{imin} (Ω)	R _{1max} (Ω)	UL	TUV
R30-050	30	40	0.50	1.00	0.46	8.00	0.3	0.150	0.600		✓

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.

R_{i min/max} = Minimum/Maximum resistance of device in initial (un-soldered) state.

R_{1 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		
In case of special use, please contact our engineer		

Agency Approvals :



R 50274672

Regulation/Standard:



2015/863/EU



EN14582



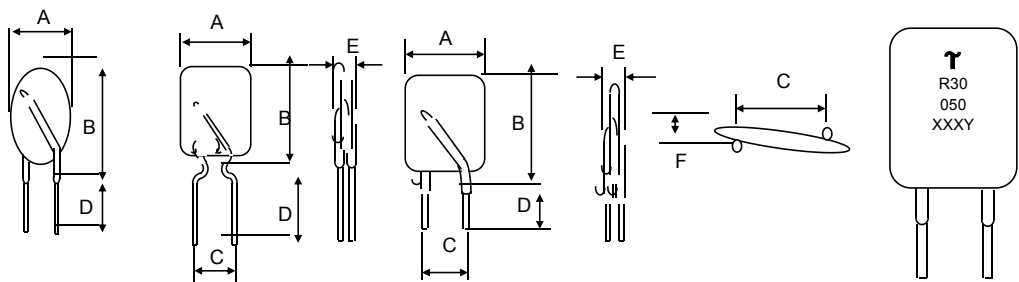
WARNING:

- 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 ($L di/dt$) 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.	F Max.	Lead Style
R30-050	7.40	11.40	5.10	7.60	3.00	1.2	Straight

Dimensions

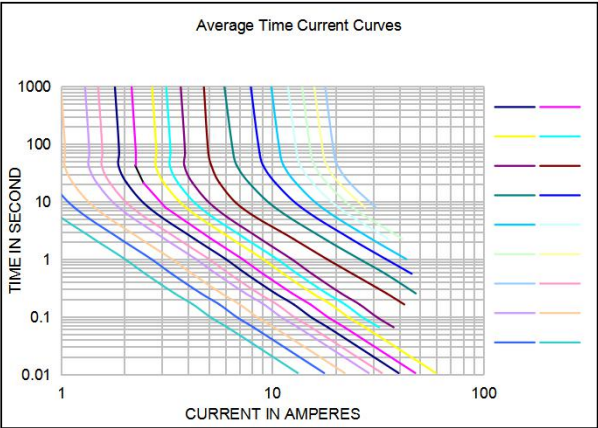


- ™ = Trademark
- R30 = Radial type 30 Vrms
- 050 = 0.50A hold current
- XXX = Date code
- Y = Factory code

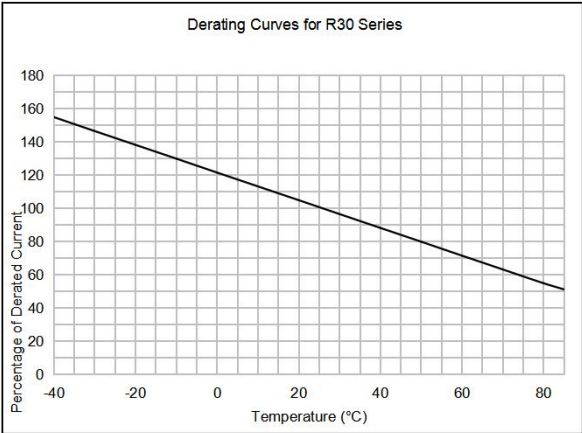
Physical Characteristics

Lead Material :
R30-050 : Tin-plated copper-clad steel, 0.205mm² (24AWG), Φ0.51mm(0.020 in).
Lead Solderability : MIL-STD-202, Method 208E

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
R30-050	0.73	0.65	0.58	0.50	0.42	0.38	0.34	0.31	0.26

Order information

R30	050	K or S	R or U	Packing		
Radial type	Hold	K= Kink leads	R=Tape&reel	Model	Reel Q'ty	Bag Q'ty
30 V	Current	S= Straight leads	U= Bulk packaged	R30-050	-	500
	0.50A					

Tape & Reel packaging per EIA468-B standard.

Labeling Information

