



SEA & LAND ELECTRONIC CORP.

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ALPHA-TOP TECHNOLOGY CORP.

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## APPROVAL SHEET

MODEL NO.: R30-030

CUSTOMER:

CUSTOMER'S APPROVAL:

AUTHORIZED SIGNATURE/STAMP:

DATE

MANUFACTURER:

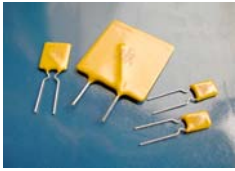
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Submitted by: Chung Cheng  
Approved by: YC Lin  
DATE: 10-Jan-13



**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

R30-030

Alpha-Top (Sea & Land Alliance)

**Electrical Properties**

| Model   | V <sub>max</sub><br>(Vdc) | I <sub>max</sub><br>(A) | I <sub>hold</sub><br>(A) | I <sub>trip</sub><br>(A) | P <sub>d</sub><br>Typ.<br>(W) | Maximum Time To Trip |               | Resistance              |                         |                          | Agency Approval |        |
|---------|---------------------------|-------------------------|--------------------------|--------------------------|-------------------------------|----------------------|---------------|-------------------------|-------------------------|--------------------------|-----------------|--------|
|         |                           |                         |                          |                          |                               | Current<br>(A)       | Time<br>(Sec) | R <sub>min</sub><br>(Ω) | R <sub>max</sub><br>(Ω) | R <sub>1max</sub><br>(Ω) | UL              | TUV-PS |
| R30-030 | 30                        | 40                      | 0.30                     | 0.60                     | 0.44                          | 8.00                 | 0.3           | 0.370                   | 0.720                   | 1.080                    |                 |        |

**I<sub>hold</sub>** = Hold Current : maximum current device will sustain for 4 hours without tripping in 25°C still air.  
**I<sub>trip</sub>** = Trip Current : minimum current at which the device will trip in 25°C still air.  
**V<sub>max</sub>** = Maximum voltage device can withstand without damage at rated current (*I<sub>max</sub>*).  
**I<sub>max</sub>** = Maximum fault current device can withstand without damage at rated voltage (*V<sub>max</sub>*).  
**P<sub>d</sub>** = Power dissipated from device when in the tripped state at 25°C still air.  
**R<sub>i min/max</sub>** = Minimum/Maximum resistance of device in initial (un-soldered) state.  
**R<sub>1 max</sub>** = 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 :

UL pending

Regulation/Standard:



2002/95/EC

EN14582

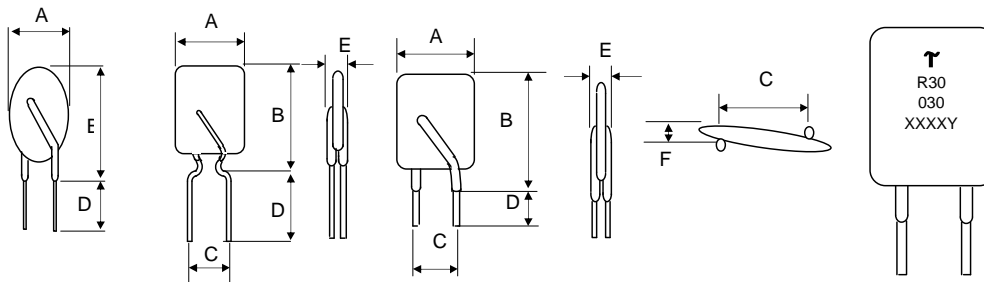
**! WARNING:**

- 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<br>Max. | B<br>Max. | C<br>Typ. | D<br>Min. | E<br>Max. | F<br>Max. | Lead<br>Style |
|---------|-----------|-----------|-----------|-----------|-----------|-----------|---------------|
| R30-030 | 7.4/0.29  | 10.2/0.4  | 5.1/0.20  | 7.6/0.3   | 3.0/0.12  | 1.2/0.05  | Straight      |

Dimensions



- ♣ = Trademark
- R30 = Radial type 30 Vrms
- 030 = 0.30A hold current
- XXXX = Date code
- Y = Factory code

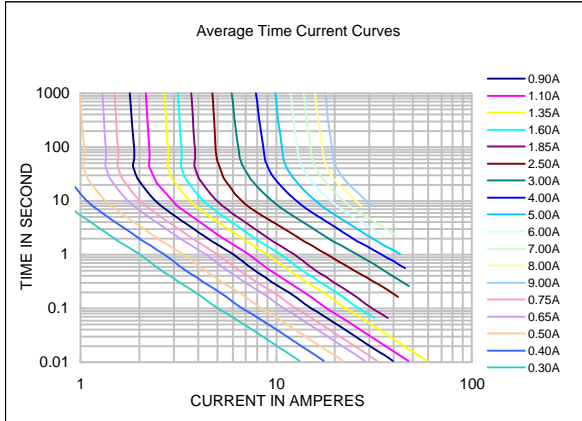
Physical Characteristics

Lead Material :

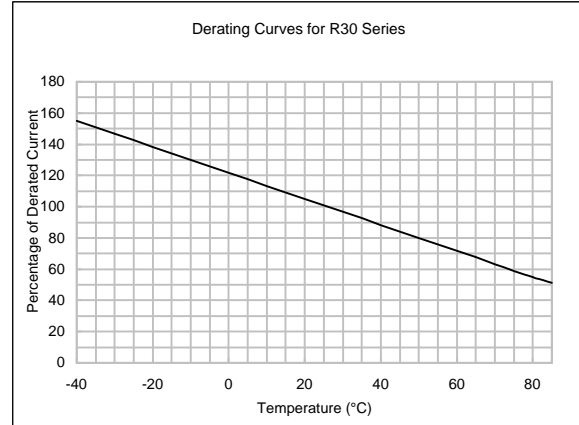
R30-030 : Tin-plated copper-clad steel, 0.205mm<sup>2</sup> (24AWG),  $\Phi$ 0.51mm(0.020 in).

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 |
| R30-030 | 0.44  | 0.39  | 0.35 | 0.30 | 0.25 | 0.23 | 0.20 | 0.18 | 0.16 |

Order information

Packing

| R30                 | 30                       | K or S                                    | R or U                             | Model   | Reel Q'ty | Bag Q'ty |
|---------------------|--------------------------|---|------------------------------------|---------|-----------|----------|
| Radial type<br>30 V | Hold<br>Current<br>0.30A | K= Kink leads<br><br>S= Straight<br>leads | R=Tape&reel<br>U= Bulk<br>packaged | R30-030 | -         | 500      |

Tape & Reel packaging per EIA468-B standard.

Labeling Information

**Sea & Land Electronic Corp.**

HF   Pb   RoHS

Model:  
Part no.:  
Spec.:  
Lot no.:  
Q'ty:

倉儲: 密封! 溫度: 18~33°C/濕度: 30~60% A