



SEA & LAND ELECTRONIC CORP.

[WWW.SEALAND-PPTC.COM](http://WWW.SEALAND-PPTC.COM)



ALPHA-TOP TECHNOLOGY CORP.

[WWW.ALPHA-TOP.CN](http://WWW.ALPHA-TOP.CN)

## APPROVAL SHEET

MODEL NO.: R30-135

CUSTOMER:

CUSTOMER'S APPROVAL:

AUTHORIZED SIGNATURE/STAMP:

DATE

### MANUFACTURER:

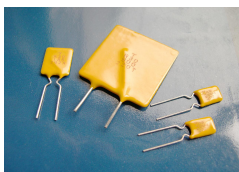
HEAD OFFICE:

13F.,No.120-10,Sec.3,Zhongshan Rd.,Zhonghe Dist.,New Taipei City 23544,Taiwan  
Tel: 886-2-8221-2567  
Fax:882-2-2225-7268  
E-mail:service@chipfast.com.tw

China Branch:

Factory Building B)Shuangpeng,Weibu Village, Qiuchang Town,  
Huiyang District, Huizhou City, Guangdong Province, P.R.C.)  
Tel: 86-752-3562001  
Fax:86-752-3558696  
E-mail:service@atpptc.com

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



## R30-135

### 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   | $V_{max}$ | $I_{max}$ | $I_{hold}$ | $I_{trip}$ | $P_d$    | Maximum Time To Trip |            | Resistance            |                       | Agency Approval |     |
|---------|-----------|-----------|------------|------------|----------|----------------------|------------|-----------------------|-----------------------|-----------------|-----|
|         | (Vdc)     | (A)       | (A)        | (A)        | Typ. (W) | Current (A)          | Time (Sec) | R <sub>imin</sub> (Ω) | R <sub>1max</sub> (Ω) | UL              | TUV |
| R30-135 | 30        | 40        | 1.35       | 2.70       | 0.8      | 6.75                 | 7.3        | 0.040                 | 0.130                 | ✓               | ✓   |

**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 ( $I_{max}$ ).  
**I<sub>max</sub>** = Maximum fault current device can withstand without damage at rated voltage ( $V_{max}$ ).  
**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 |                           |                   |
| In case of special use, please contact our engineer                      |                           |                   |

### Agency Approvals :



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



R 50274672

### Regulation/Standard:



2015/863/EU



EN14582



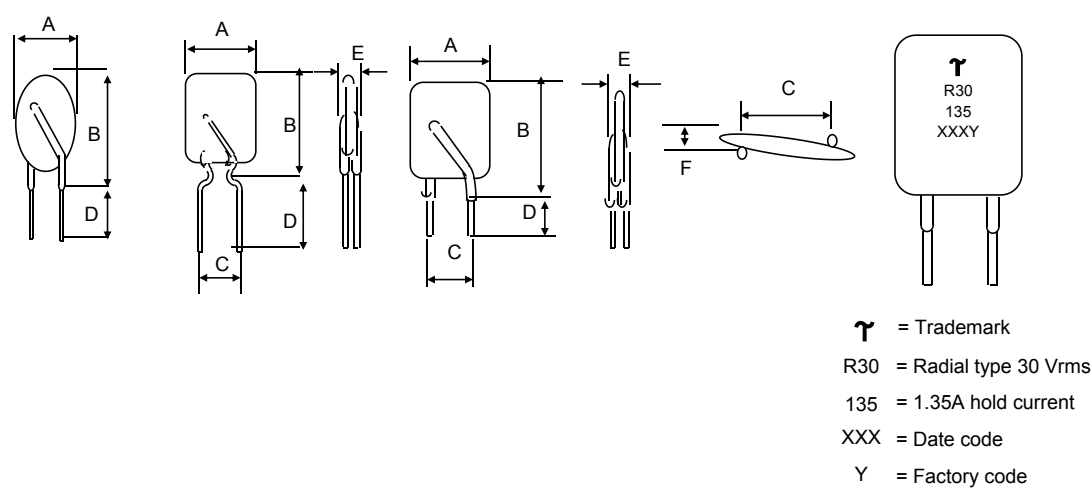
### WARNING:

- 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<br>Max. | B<br>Max. | C<br>Typ. | D<br>Min. | E<br>Max. | F<br>Max. | Lead<br>Style |
|---------|-----------|-----------|-----------|-----------|-----------|-----------|---------------|
| R30-135 | 8.9       | 13.5      | 5.1       | 7.6       | 3.0       | 1.2       | Kink          |

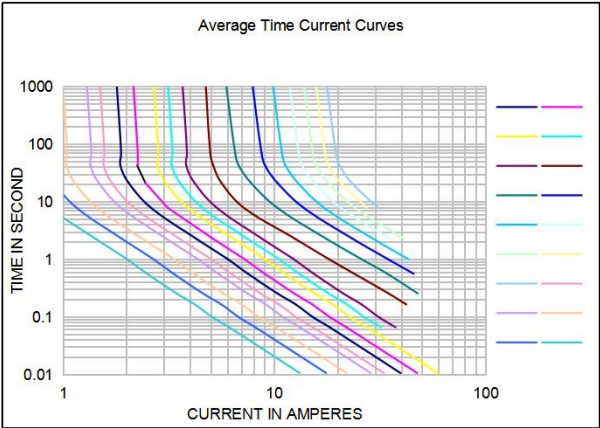
Dimensions



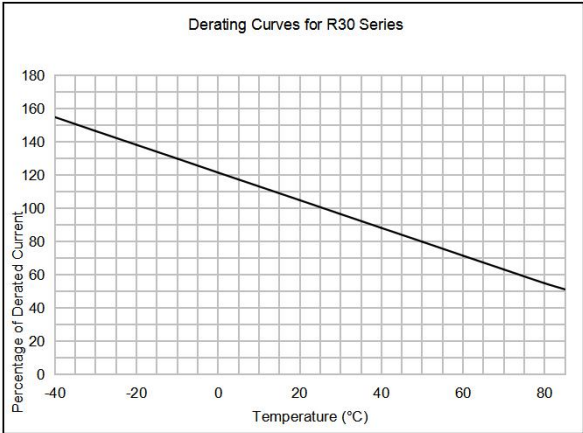
Physical Characteristics

**Lead Material :**  
R30-135 : Tin-plated copper-clad steel, 0.205mm<sup>2</sup> (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 |
| R30-135 | 1.96                                                                                | 1.76  | 1.55 | 1.35 | 1.12 | 1.04 | 0.92 | 0.82 | 0.70 |

Order information

| R30         | 135     | 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 | R30-135 | 3000      | 500      |
|             | 1.35A   |                   |                  |         |           |          |

Tape & Reel packaging per EIA468-B standard.

Labeling Information

