SEA & LAND ELECTRONIC CORP.
WWW.SEALAND-PPTC.COM

ALPHA-TOP TECHNOLOGY CORP.
WWW.ALPHA-TOP.CN

APPROVAL SHEET

MODEL NO.： R30-185

CUSTOMER：

CUSTOMER'S APPROVAL：

AUTHORIZED SIGNATURE/STAMP：

DATE

MANUFACTURER:

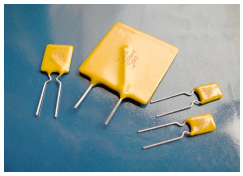
HEAD OFFICE:

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:	11-Jan-22



R30-185

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 Current (A)	Maximum Time To Trip Time (Sec)	Resistance Rimin (Ω)	Resistance R1max (Ω)	Agency Approval UL	Agency Approval TUV
R30-185	30	40	1.85	3.70	1.0	9.25	8.7	0.030	0.090	√	√

Ihold = Hold Current : maximum current device will sustain for 4 hours without tripping in 25°C still air.
Itrip = 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}).
Pd = 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		
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

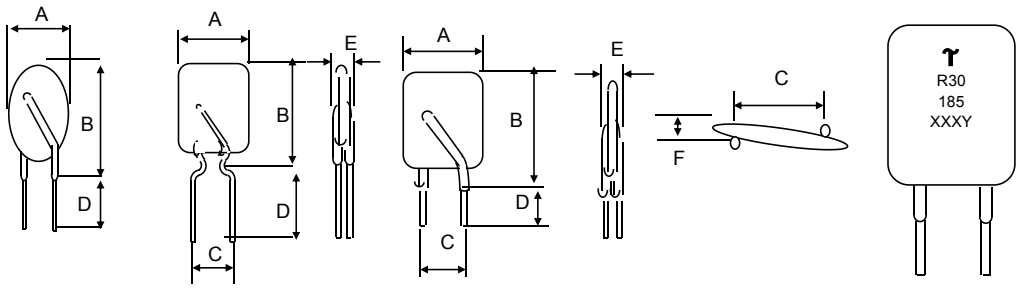
WARNING:

· 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 Max.	B Max.	C Typ.	D Min.	E Max.	F Max.	Lead Style
R30-185	10.2	15.7	5.1	7.6	3.0	1.2	Kink

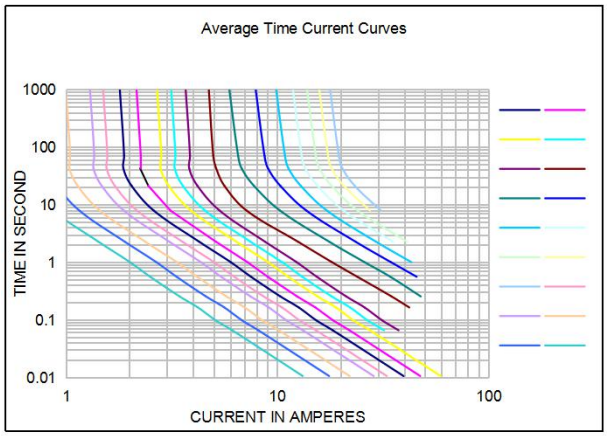
Dimensions



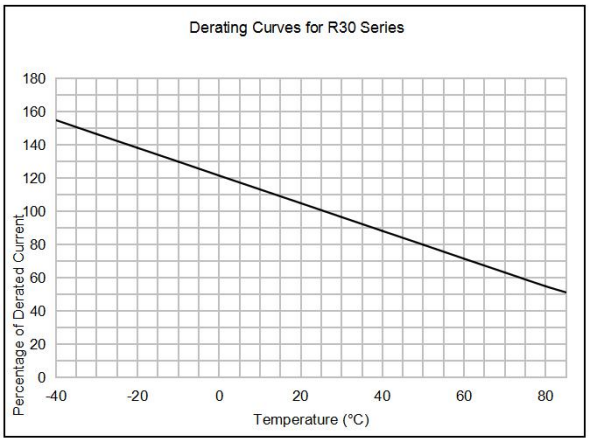
ϒ = Trademark
R30 = Radial type 30 Vrms
185 = 1.85A hold current
XXX = Date code
Y = Factory code

Physical Characteristics
Lead Material :
R30-185: Tin-plated copper-clad steel, 0.205mm^2 (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
R30-185	2.68	2.41	2.13	1.85	1.54	1.42	1.26	1.13	0.96

Order information

R30	185	K or S	R or U
Radial type 30 V	Hold Current 1.85A	K= Kink leads S=Straight leads	R=Tape&reel U= Bulk packaged

Packing

Model	Reel Q'ty	Bag Q'ty
R30-185	3000	500

Tape & Reel packaging per EIA468-B standard.

Labeling Information