

# Radial Lead Resettable Polymer PTCs

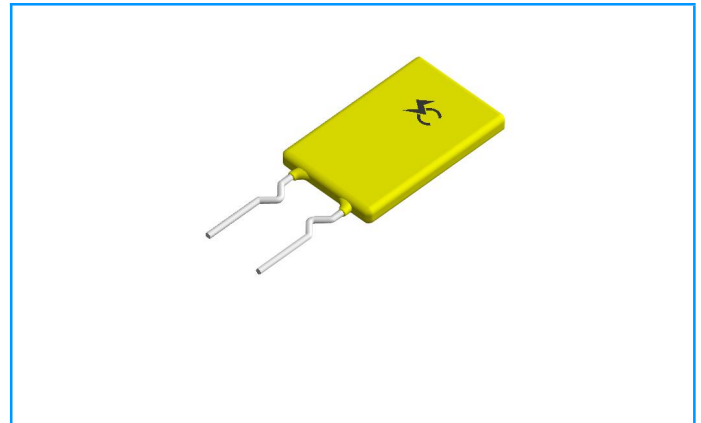
## SC16-185SW0A

### Features

- ◆ RoHS Compliant and Halogen-Free
- ◆ Radial leaded Devices
- ◆ Cured, flame retardant epoxy polymer insulating material meets UL94V-0 requirements
- ◆ Operation Current: 1.85A, Maximum Voltage:16Vdc, Operating Temperature: -40°C to +85°C

### Applications

- ◆ Computers and peripherals
- ◆ Power ports
- ◆ General electronics



### Electrical Parameters

Part Number	I <sub>hold</sub> (A)	I <sub>trip</sub> (A)	V <sub>max</sub> (Vdc)	I <sub>max</sub> (A)	P <sub>dtyp</sub> (W)	Maximum Time To Trip		Resistance		
						Current (A)	Time (S)	R <sub>min</sub> (mΩ)	R <sub>max</sub> (mΩ)	R1 <sub>max</sub> (mΩ)
SC16-185SW0A	1.85	3.70	16	40	1.0	5.55	12	40	80	100

I<sub>hold</sub>= Hold current: maximum current at which the device will not trip at 25°C still air.

I<sub>trip</sub>= Trip current: minimum current at which the device will always at 25°C still air.

V<sub>max</sub>= Maximum voltage device can withstand without damage at rated current.

I<sub>max</sub>= Maximum fault current device can withstand without damage at rated voltage.

T<sub>trip</sub>=Maximum time to trip(s) at assigned current.

P<sub>dtyp</sub>= Typical power dissipation: typical amount of power dissipated by the device when in state air environment.

R<sub>min</sub>= Minimum device resistance at 25°C prior to tripping.

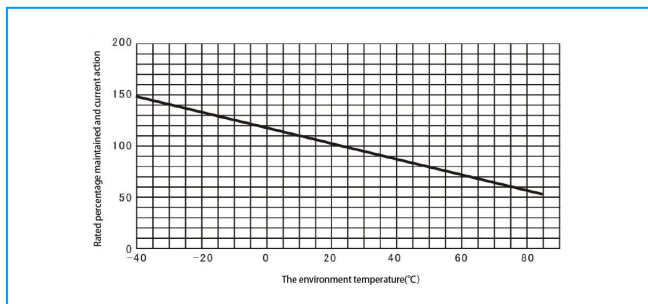
R<sub>max</sub>= Maximum device resistance at 25°C prior to tripping.

R1<sub>max</sub>= Maximum resistance of device at 25°C measured one hour after tripping.

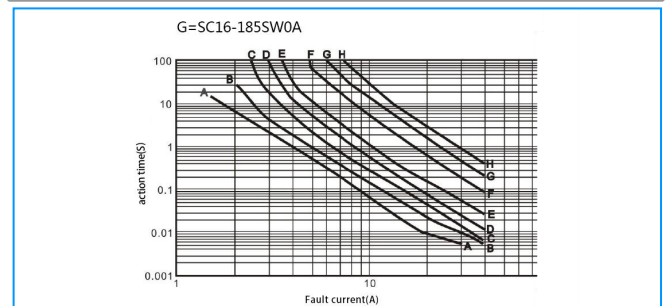
Caution: Operation beyond the specified rating may result in damage and possible arcing and flame.

Part Number	Maximum Ambient Operation Temperature								
	-40°C	-20°C	0°C	25°C	40°C	50°C	60°C	70°C	85°C
	Hold Current (A)								
SC16-185SW0A	2.68	2.41	2.13	1.85	1.54	1.42	1.26	1.13	0.96

### Average Time Current Curves



### Temperature Rerating Curve



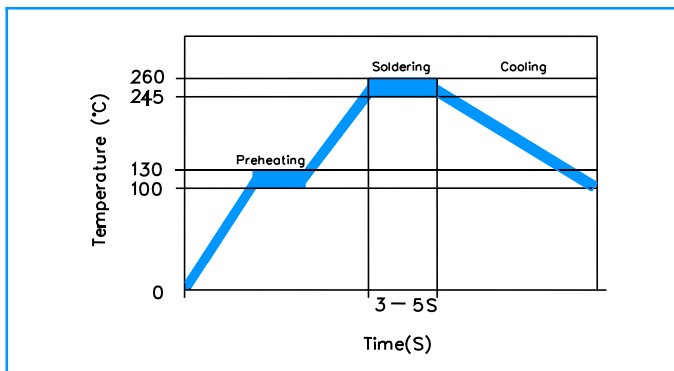
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## SC16-185SW0A

### Test Procedures and Requirements

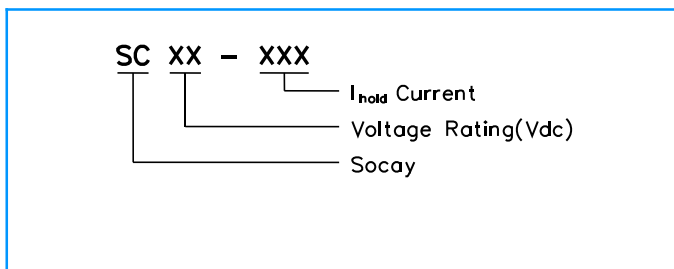
Test Item	Test Conditions	Accept/Reject Criteria
Resistance	In still air @25°C	$R_{min} \leq R \leq R_{max}$
Hold Current	60 min, @ $I_{hold}$	No trip
Time to Trip	Specified current, $V_{max}$ , @25°C	$T \leq$ Maximum Time To Trip
Frequency Current Withstand	$V_{max} / I_{max}$ , 15 minute	Resistance change rate: $\leq 50\%$
Trip Endurance	$V_{max} / I_{max}$ , 24 hours	No arcing or burning

### Soldering Parameters

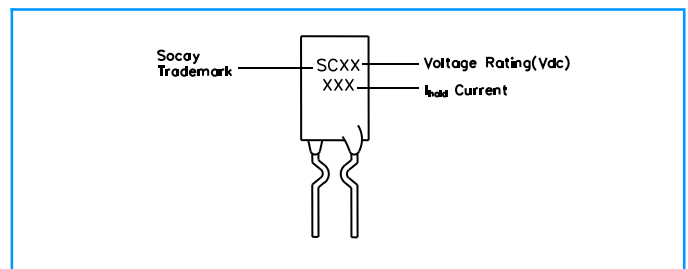


<b>Pre-Heating Zone</b>	Refer to the condition recommended by the manufacturer. Max. ramping rate should not exceed 4°C/Sec
<b>Soldering Zone</b>	Max. solder temperature should not exceed 260°C
<b>Cooling Zone</b>	Cooling by natural convection in air

### Part Numbering



### Part Marking



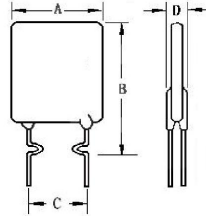
### Packaging and Storage

Part Number	Quantity
SC16-185SW0A	1000Pcs/Bag or 2000Pcs/Box

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**SC16-185SW0A**

## Dimensions



Part Number	Dimensions (mm)				Lead Material
	A (Max)	B (Max)	C	D (Max)	Tinned Metal (mm)
SC16-185SW0A	8.8	15.5	5.1±0.5	3.0	24 AWG/Φ0.5