

## **Radial Lead Resettable Polymer PTCs**

## SC60-017CW0D

#### **Features**

- u RoHS Compliant and Halogen-Free
- u Radial leaded Devices
- Cured,flame retardant epoxy polymer insulating material meets UL94V-0 requirements
- **u** Operation Current: 0.17A, Maximum Voltage: 60Vdc, Operating Temperature:  $-40^{\circ}$ C to  $+85^{\circ}$ C

#### **Applications**

- u USB hubs, ports and peripherals
- **u** Power ports
- u IEEE1394 ports
- **u** Motor protection
- u Automotive application
- u Computers and peripherals
- **u** General electronics

#### **Electrical Parameters**

Port Number			V <sub>max</sub>	I <sub>max</sub>	Maximum Time To Trip			Resistance			
Part Number	I <sub>hold</sub> (A)	I <sub>trip</sub> (A)	(Vdc)	(A)	(W)	Current (A)	Time (S)	R <sub>min</sub> (Ω)	R <sub>max</sub> (Ω)	R1 <sub>max</sub> (Ω)	
SC60-017CW0D	0.17	0.34	60	40	0.60	0.85	10.0	2.00	3.20	5.00	

I  $_{\text{hold}}\text{=}$  Hold current: maximum current at which the device will not trip at 25  $^\circ\!\!\mathrm{C}$  still air.

I  $_{\text{trip}}\text{=}$  Trip current: minimum current at which the device will always at 25  $^\circ\!\!\mathrm{C}$  still air.

V max= Maximum voltage device can withstand without damage at rated current.

I  $_{max}$ = Maximum fault current device can withstand without damage at rated voltage.

T trip=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  $_{\text{min}}\text{=}$  Minimum device resistance at 25  $^\circ\!\mathrm{C}$   $\,$  prior to tripping.

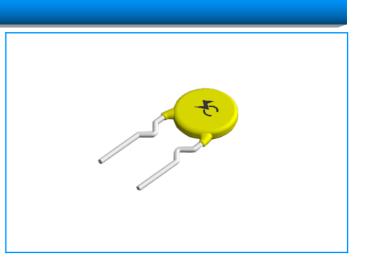
R  $_{\text{max}}\text{=}$  Maximum device resistance at 25  $^\circ\!\mathrm{C}$  prior to tripping.

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.

## Temperature Rerating Chart - I hold (A)

Ambient Operation	<b>-40</b> ℃	<b>-20°</b> ℃	<b>0°C</b>	<b>23℃</b>	<b>30℃</b>	<b>40℃</b>	<b>50°</b> ℃	<b>60°</b> C	<b>70℃</b>	<b>85°</b> C
Temperature	-40 C	-20 C	00	230	30 (	40 C	300	000	100	<b>0J</b> C
Percentage Reduction	145%	130%	120%	100%	95%	88%	80%	71%	66%	56%



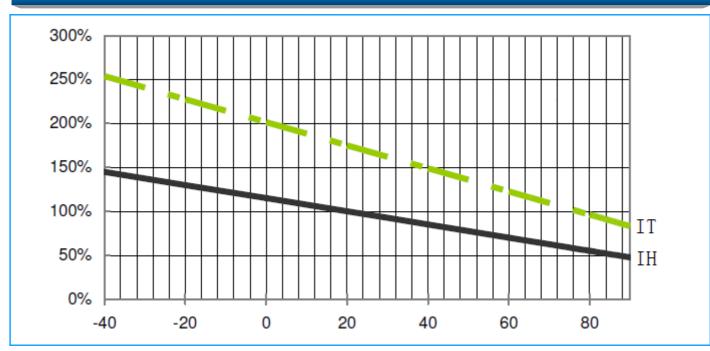


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## SC60-017CW0D

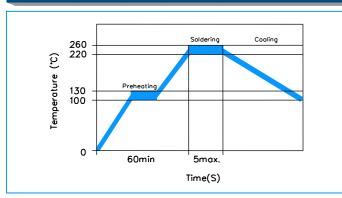
## **Temperature Derating Curve**



### **Test Procedures and Requirement**

Test	Test Conditions	Accept/Reject Criteria			
Resistance	In still air @25±2°C	$R_{min} \leq R \leq R_{max}$			
Hold Current	60 min, at I <sub>hold</sub> , In still air @25±2°C	No trip			
Time to Trip	Specified current, V <sub>max</sub> , @25±2°C	T≤Maximum Time To Trip			
Trip Cycle Life	V <sub>max</sub> , I <sub>max</sub> ,100 cycles	No arcing or burning			
Trip Endurance	Vmax,24hours	No arcing or burning			

## **Soldering Parameters**



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

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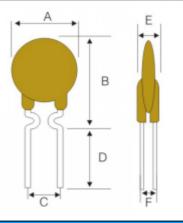
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## SC60-017CW0D

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Lead Material	0.03-1.85A Tin-plated Copper clad steel 2.50-5.00A Tin-plated Copper			
Soldering Characteristics	Solder ability per MIL-STD-202, Method 208E			
Insulating Material	Cured, flame retardant epoxy polymer meets UL 94V-0 requirements.			
Device Labeling	Marked with 'SC', voltage, current rating			

### Dimensions



Part Number		Lead Material					
Fart Number	A (Max)	B (Max)	С (Тур)	D (Min)	E (Max)	F (Typ)	Tinned Metal (mm)
SC60-017CW0D	7.4	12.7	5.1	7.6	3.1	1.1	Ф0.50

Packaging Quantity				
Part Number	Quantity (pcs/reel)			
SC60-017CW0D	1000			