

Radial Lead Resettable Polymer PTCs

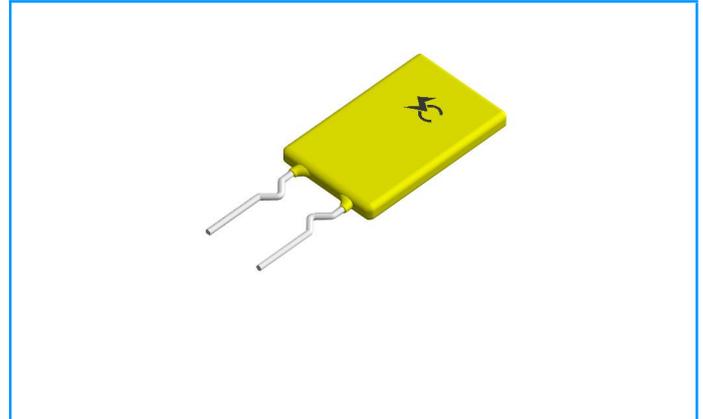
SC6-090SW0A

Features

- ◆ RoHS Compliant and Halogen-Free
- ◆ Radial leaded Devices
- ◆ Cured, flame retardant epoxy polymer insulating material meets UL94V-0 requirements
- ◆ Operation Current: 0.90A, Maximum Voltage: 6Vdc, Operating Temperature: -40°C to +85°C

Applications

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



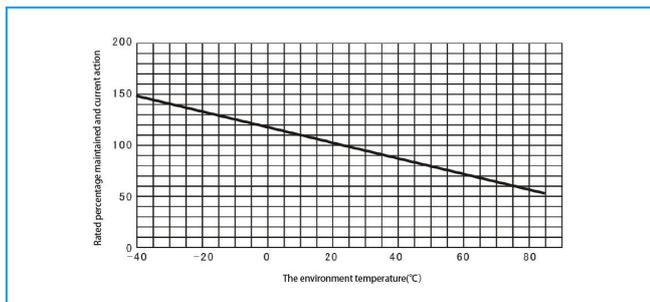
Electrical Parameters

Part Number	I _{hold} (A)	I _{trip} (A)	V _{max} (Vdc)	I _{max} (A)	P _{dtyp} (W)	Maximum Time To Trip		Resistance		
						Current (A)	Time (S)	R _{min} (mΩ)	R _{max} (mΩ)	R1 _{max} (mΩ)
SC6-090SW0A	0.90	1.80	6	40	0.60	2.70	10	90	180	270

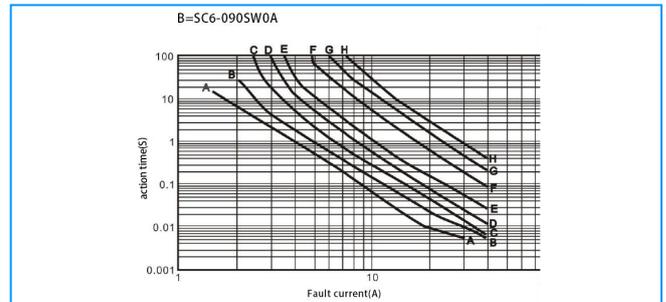
I_{hold} = Hold current: maximum current at which the device will not trip at 25°C still air.
 I_{trip} = Trip current: minimum current at which the device will always trip at 25°C still air.
 V_{max} = Maximum voltage device can withstand without damage at rated current.
 I_{max} = Maximum fault current device can withstand without damage at rated voltage.
 T_{trip} = Maximum time to trip(s) at assigned current.
 P_{dtyp} = Typical power dissipation: typical amount of power dissipated by the device when in state air environment.
 R_{min} = Minimum device resistance at 25°C prior to tripping.
 R_{max} = Maximum device resistance at 25°C prior to tripping.
 R1_{max} = 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)								
SC6-090SW0A	1.31	1.17	1.04	0.90	0.75	0.69	0.61	0.55	0.47

Average Time Current Curves



Temperature Rerating Curve



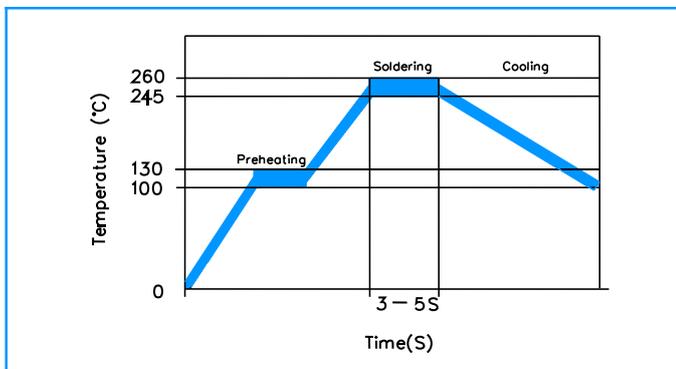
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Test Procedures and Requirements

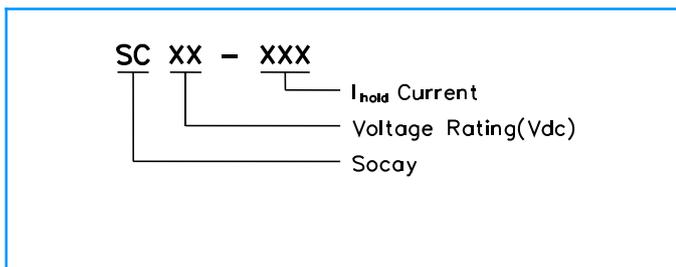
Test Item	Test Conditions	Accept/Reject Criteria
Resistance	In still air @25°C	$R_{min} \leq R \leq R_{max}$
Hold Current	60 min, @ I_{hold}	No trip
Time to Trip	Specified current, V_{max} , @25°C	$T \leq$ Maximum Time To Trip
Frequency Current Withstand	V_{max} / I_{max} , 15 minute	Resistance change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

Soldering Parameters

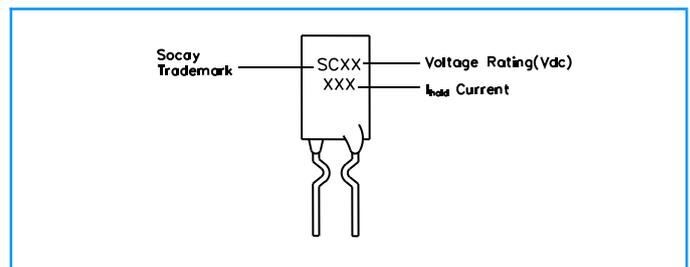


Pre-Heating Zone	Refer to the condition recommended by the manufacturer. Max. ramping rate should not exceed 4°C/Sec
Soldering Zone	Max. solder temperature should not exceed 260°C
Cooling Zone	Cooling by natural convection in air

Part Numbering



Part Marking



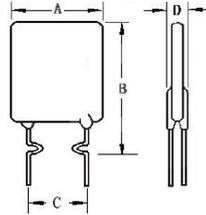
Packaging and Storage

Part Number	Quantity
SC6-090SW0A	1000Pcs/Bag or 2000Pcs/Box

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Dimensions



Part Number	Dimensions (mm)				Lead Material
	A (Max)	B (Max)	C	D (Max)	Tinned Metal (mm)
SC6-090SW0A	6.5	11.5	5.1±0.5	3.0	24 AWG/Φ0.5