

Radial Lead Resettable Polymer PTCs

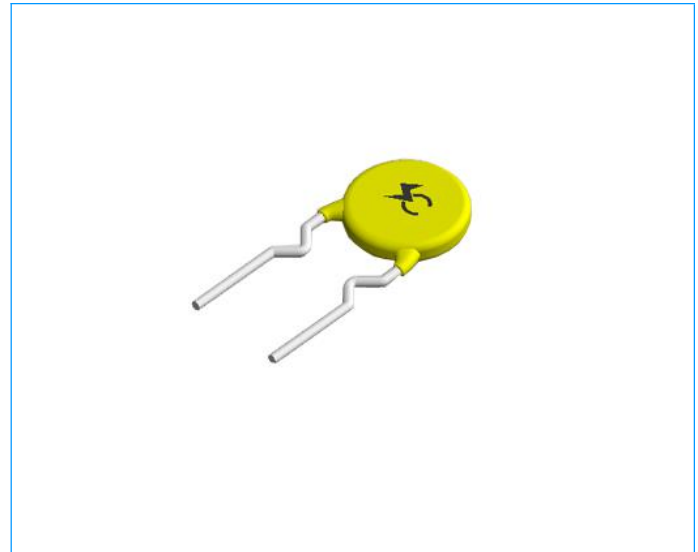
SC30-050CW0D

Features

- ◆ RoHS Compliant and Halogen-Free
- ◆ Radial leaded Devices
- ◆ Cured, flame retardant epoxy polymer insulating material meets UL94V-0 requirements
- ◆ Operation Current: 0.5 A, Maximum Voltage: 30 Vdc, Operating Temperature: -40°C to +85°C

Applications

- ◆ USB hubs, ports and peripherals
- ◆ Power ports
- ◆ IEEE1394 ports
- ◆ Motor protection
- ◆ Automotive application
- ◆ Computers and peripherals
- ◆ 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} (Ω)	R _{1max} (Ω)
SC30-050CW0D	0.5	1.0	30	40	0.5	2.5	4.1	0.29	0.765

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 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.

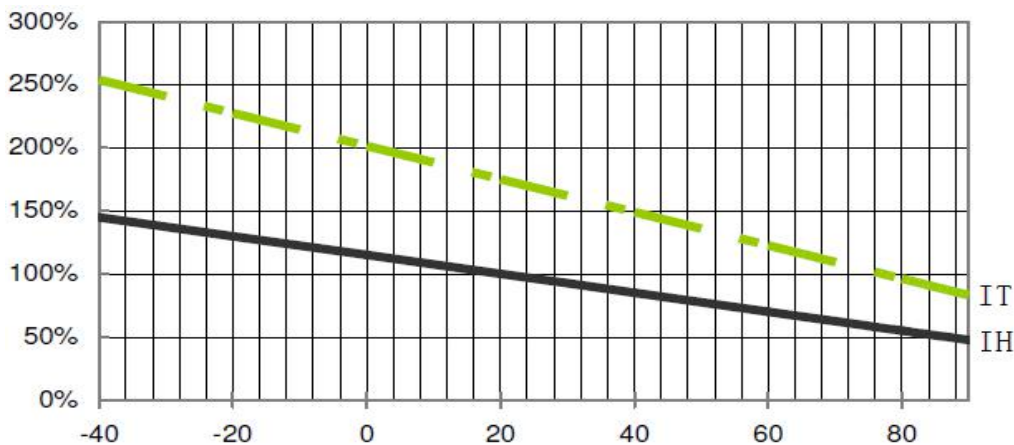
R_{min}= Minimum device resistance at 25°C prior to tripping.

R_{max}= Maximum device resistance at 25°C prior to tripping.

R_{1max}= 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 Derating Curve



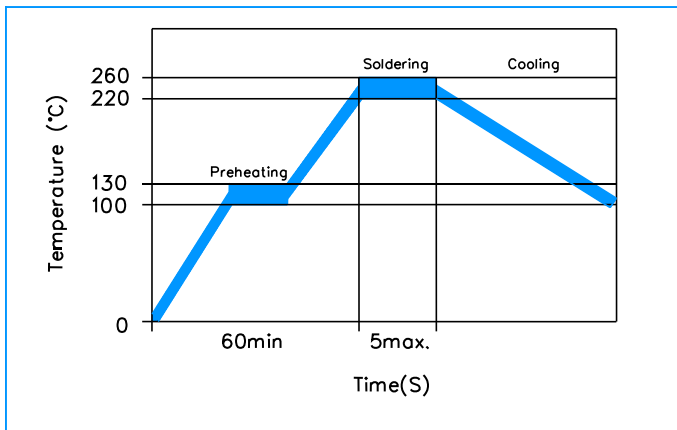
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Test Procedures and Requirement

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_{hold} , In still air @25±2°C	No trip
Time to Trip	Specified current, V_{max} , @25±2°C	$T \leq$ Maximum Time To Trip
Trip Cycle Life	V_{max} , I_{max} , 100 cycles	No arcing or burning
Trip Endurance	V_{max} , 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

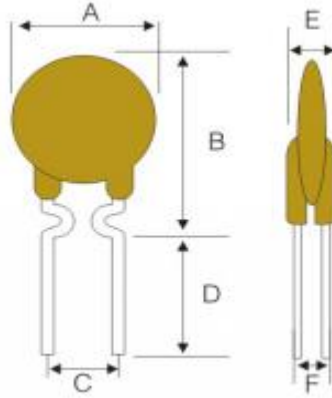
Physical Specifications

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

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Dimensions



Part Number	Dimensions (mm)					
	A (Max)	B (Max)	C (Typ)	D (Min)	E (Max)	F (Typ)
SC30-050CW0D	7.0	12.5	5.1	7.6	3.0	0.9

Packaging Quantity

Part Number	Quantity (pcs/reel)
SC30-050CW0D	1000