SOCAY

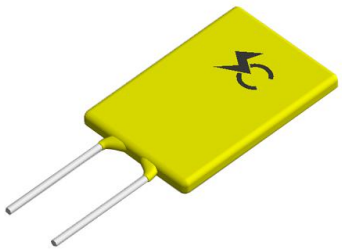
HF RoHS

Radial Lead Resettable Polymer PTCs

SC600-500SZ0D

Features

- Radial leaded devices
- Over-current protection
- High voltage surge capabilitiess
- Flame retardant epoxy polymer insulating material meets UL94 V-0 requirement
- Available in lead-free version
- Meets MSL level 1, per J-STD-020
- Relative Humidity: ≤80%RH
- Operation Current: 0.50A, Maximum Voltage: 400Vdc, Operating Temperature: -40℃ to +85℃



Applications

- IT equipment
- Access network equipment
- Central office equipment
- ISDN and xDSL equipments
- Phone set and fax machine
- LAN/WAN and VOIP cards

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)	$R1_{max}$ (Ω)
SC600-500SZ0D	0.50	1.00	400	3.0	1.5	2.50	15.0	0.6	1.5

I_{hold}= Hold current: maximum current at which the device will not trip at 25℃ still air.
I_{trip}= Trip current: minimum current at which the device will always at 25℃ 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℃ prior to tripping.
R_{max}= Maximum device resistance at 25℃ prior to tripping.
$R1_{max}$= Maximum resistance of device at 25℃ measured one hour after tripping.
Caution: Operation beyond the specified rating may result in damage and possible arcing and flame.

Temperature Derating Chart – I_{hold} (A)

Ambient Operation Temperature	-40℃	-20℃	0℃	23℃	30℃	40℃	50℃	60℃	70℃	85℃
Percentage Reduction	145%	130%	120%	100%	95%	88%	80%	71%	66%	56%

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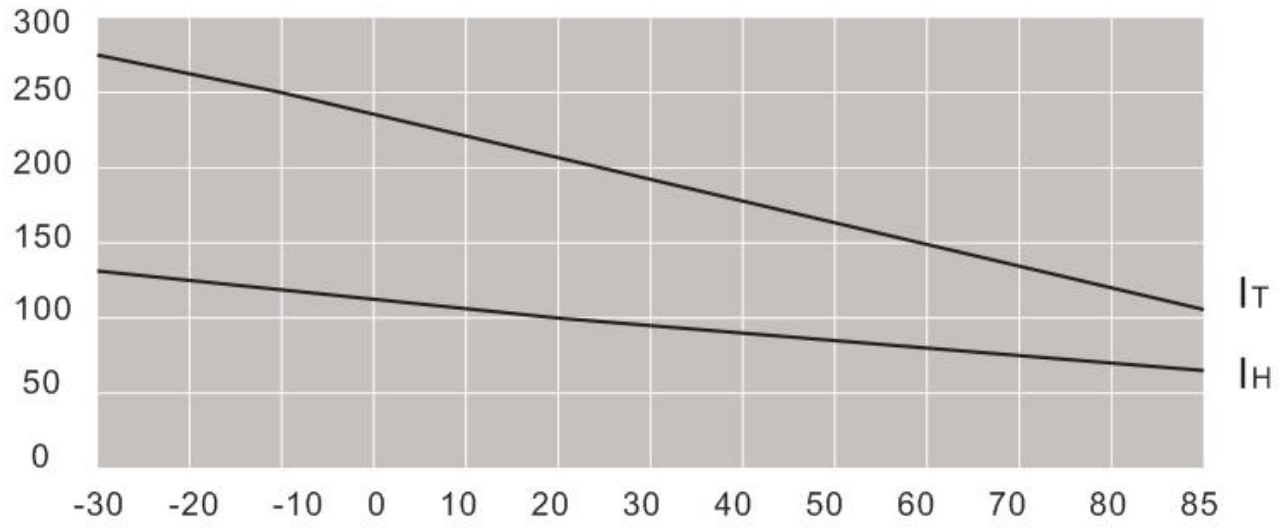
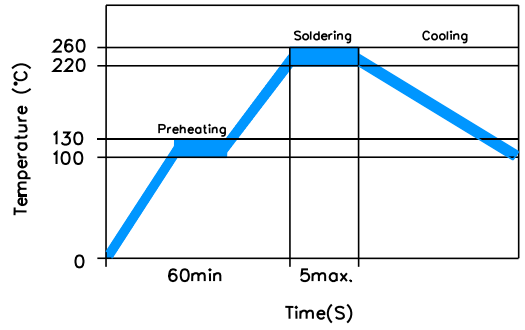
Temperature Derating Curve



Test Procedures and Requirement

Test	Test Conditions	Accept/Reject Criteria
Resistance	In still air @25±2°C	$R_{min} \leqslant R \leqslant R_{max}$
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≤Maximum Time To Trip
Trip Cycle Life	V_{max}, I_{max},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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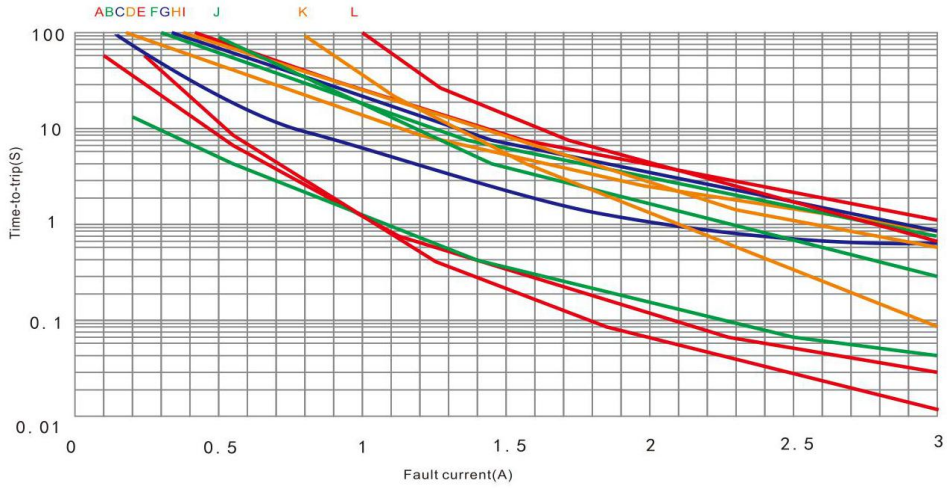
Physical Specifications

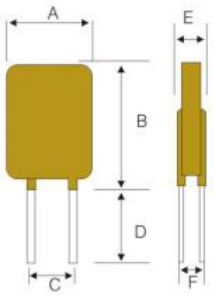
Lead Material	0.03-1.85A Tin-plated Copper clad steel 2.50-5.00A Tin-plated Copper
Soldering Characteristics	Solder ability per MIL-STD-202, Method 208E
Insulating Material	Cured, flame retardant epoxy polymer meets UL 94V-0 requirements.
Device Labeling	Marked with 'SC', voltage, current rating

Typical Time-To-Trip at 25℃±2℃



Note: L=SC600-500SZ0D

Dimensions



Part Number	Dimensions (mm)						Lead Material
	A (Max)	B (Max)	C (Typ)	D (Min)	E (Max)	F (Typ)	Tinned Metal (mm)
SC600-500SZ0D	20.5	32.0	10.2	7.6	6.5	/	Φ0.78

Packaging Quantity

Part Number	Quantity (pcs/reel)
SC600-500SZ0D	100