

Description

SCC-D series ceramic PTC thermistor is a circuit protector whose resistance value in normal operation is very low and in abnormal situations like overcurrent or overheating, will be increased to restrain overcurrent. SCC-D series can be used for overcurrent protection against current fuse or temperature fuse, due to its ability to return to its initial condition when overcurrent is removed.



Features

- Leaded thermistor disk with coating.
- Lead diameter 0.6mm.
- Linked leads of tinned copper wire.
- Low residue current.
- Circuit is protected until current is turned off.
- Restores the original low resistance value automatically once the overload is removed.
- Non-contact design leads to long life and no noise. Durable and strong against mechanical vibration and shock because it is a solid element.
- Basic level lightning surges (10/700 μ s)
- Basic level power induction (600 V, 1 A, 0.2 s)
- Power contact criteria A/B (230 V, 15 min.)

Applications

- High voltage electric implement
- Digital multimeter
- Intelligent power-meter
- Industrial controls
- Telecom device

Basic reference data

PARAMETER	VALUE	UNIT
Maximum voltage (RMS)	250	V
Maximum current	3	A
Temperature range (V=Vmax)	0 to +70	°C
Weight	~1.0739	g
Resistance(25°C)	10	Ω

Electrical Characteristics

No.	ITEM	Min.	Typ.	Max.	Unit
1	Rated zero power resistance (25°C)	8	10	12	Ω
2	Hold current at 25±2°C 40±2°C	150			mA
		130			mA
3	Trip time 3A→0.5A 1A→0.5A 500mA→150mA			0.45	S
				4.5	S
				25	S
4	Rated Voltage		250		V
5	Max Voltage		250		V
6	Max Current		3		A
7	Surge test: 10/1000 μs, 1.0KV, 25A,30 Cycles		25		A
8	Operating temperature range (V=0)	-40		85	°C
9	Operating temperature range (V=Vmax)	0		70	°C

Physical Specifications

Lead material	Tin plated brass
Coating material	Silicon resin
Solder heat withstand	IEC-STD 68-2-20,
Lead solderability	EIC60068-2-58
Flammability rating	IEC 695-2-2 Needle Flame Test for 20 s
Storage humidity	Per IPC/JEDEC J-STD-020A Level 2a

Environmental Characteristics

Item	Test condition	Requirement
Solderability	235°C, Immerging time is 2±0.5s.	Tinning must be well after testing.
oldering heat	350°C, 3.5±0.5s, measure the value of its resistance	(R ₂ -R ₁) /R ₁ <20%
Vibration	10HZ to 55HZ within one minute. Displacement of swing is 0.75mm. two directions of X/Y respectively 45minute	(R ₂ -R ₁) /R ₁ <20%
Shock	100 m/s ² for 11ms. two directions of X/Y respectively 60~80 time per minute , 1000 times.	(R ₂ -R ₁) /R ₁ <20%
Damp heat,steady state	40°C,humidity of 90%-95% , 48hrs	(R ₂ -R ₁) /R ₁ <20%
Dry Hot	70°C,2 h	(R ₂ -R ₁) /R ₁ <20%
Dry Cold	0°C,2 h.	(R ₂ -R ₁) /R ₁ <20%
Thermal Shock	0°C,70°C,exposing for 30min, transfer for 2minute, circulate for 5 times	(R ₂ -R ₁) /R ₁ <20%

Notice :

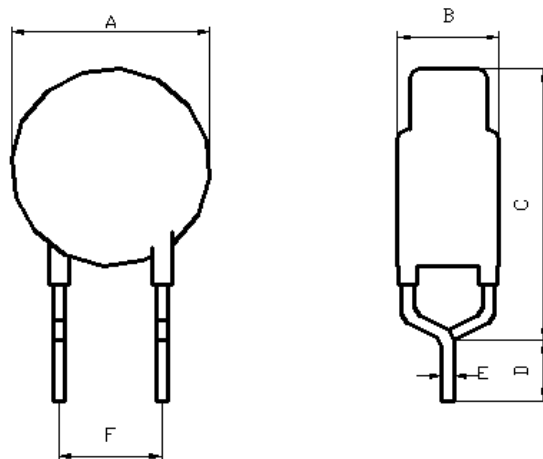
The samples shall be put under normal pressure and 25±2°C for 2h after the test. And then check the value of its resistance.

Telcom Standards

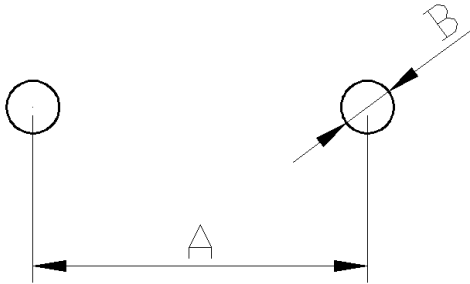
- ITU-T K.20/21/45
- GR-1089-CORE
- YD/741
- Q/320581BJH302-2004

Product Demension (mm)

Ref.	Dimensions	
	Millimeters	
	Min.	Max.
A		9.8
B		5.0
C	0	14.5
D	2.5	4.5
E	0.55	0.65
F	3.5	6.5



Recommend Solder Pad (mm)



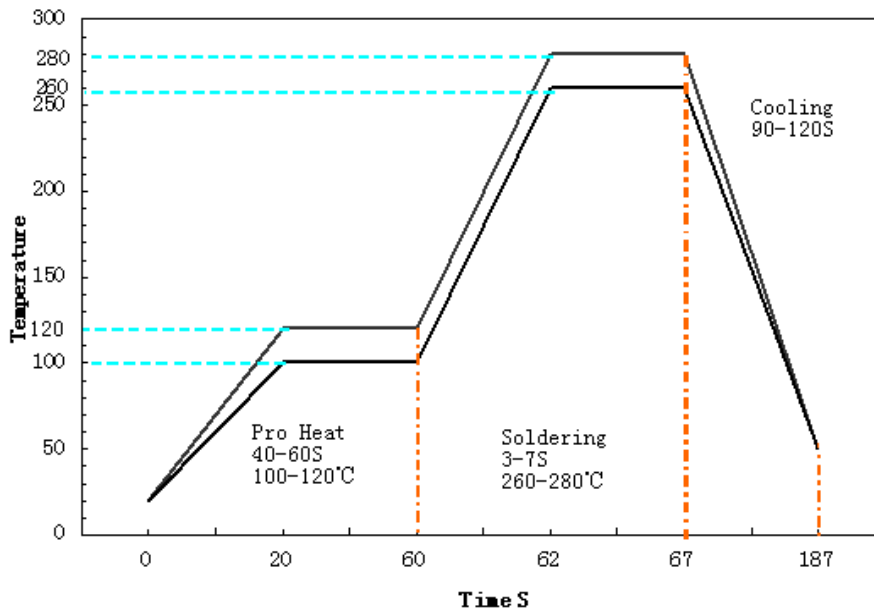
A	B	Unit
5.0	0.8-0.9	mm

Marking

SCC
100D

Wave Solder Recommendation

- Recommended wave soldering methods.
- Devices can be cleaned using standard industry methods and solvents.
- If a device is removed from the board, it should be discarded and replaced with a new device.
- Leaded devices are not designed to be compatible with reflow soldering manufacturing operations.
- Lead free wave soldering curve.



NOTE If wave solder temperatures exceed recommended profile, devices may not meet the performance requirements, If the wave soldering curve can not satisfy your product, please contact SEMITEL.

Storage

The production should be in the environment of good ventilation. The indoor temperature is $-40^{\circ}\text{C} \sim +55^{\circ}\text{C}$, and the relative humidity $\cong 85\%$ (at 25°C), without acid, alkali and other harmful impurity.

Package Info

Package	Bag QTY	Box QTY	Component Weight	Net Weight Per Box	Gross Weight/Per Box	Box Outline
	PCS	PCS	g	Kg	Kg	mm
Bulk	640	10240	1.0739	11.00	12.49	380×250×290