

SPECIFICATION FOR APPROVAL

<p>CUSTOMER'S APPROVAL CHOP</p> <p>Approval's condition: _____</p> <p>Approved date: _____</p>
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KINDLY RETURN A SET WITH YOUR COMPANY'S OFFICIAL STAMP
ON APPROVAL OF THIS ITEM

CUSTOMER'S NAME: _____

CUSTOMER'S MODEL NO. : _____

CUSTOMER'S PART NO. : _____

DESCRIPTION: _____
PTC THERMISTOR

Semitel'S MODEL NO. : _____
SCPTC5.5-50R-20

VERSION: _____
A

DATE: _____
2021/6/7

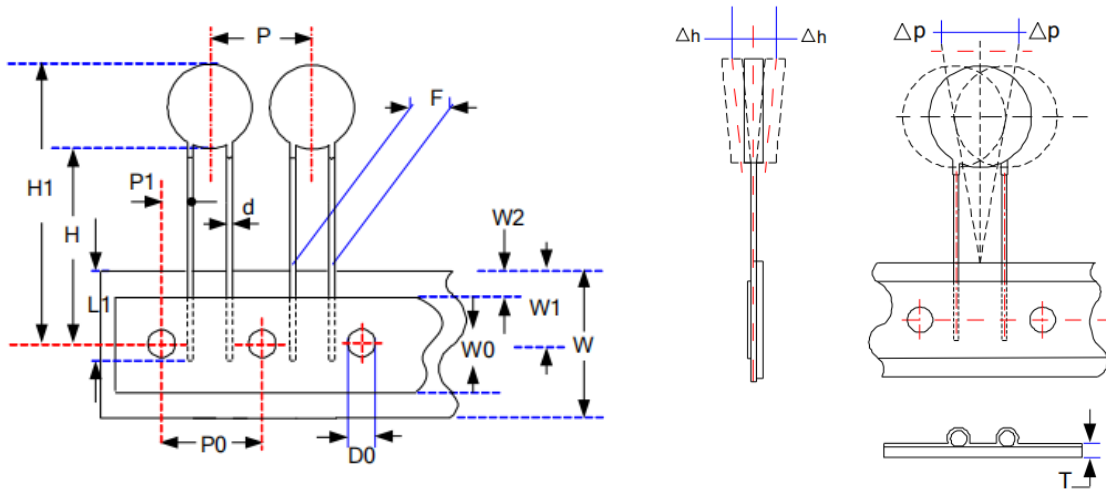
Attachments:

- Product Specification
- Sample Qty. :
- Test Data

Prepared By	Checked By	Approved By
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1. Structure and Dimensions



1-1 Size unit: mm

Distance	P_0	F	P	P_1	H_0	H_1	d	W_0	直径
		± 0.3	± 1	± 1	± 0.7	± 1	Max.	± 0.02	± 1
12.7	12.7	5.0	12.7	4.35	16	28	0.6	12	5.5-7.0
	W_1	W_2	W	ΔP	Δh	L_1	D_0	T	厚度
	$+0.75/-0.5$	Max.	$+1/-0.5$	Max.	Max.	Max.	± 0.2	± 0.2	thickness
	9	3	18	1	2	0.5	4	0.6	3.0-4.5

1-2 Coating material : Organic Silicon Resin

1-3 Coating color: Grey

1-4 Lead wire: Side bending

1-5 Lead wire type: Tinned copper wire

1-6 Logo: TBD

2. Electrical characteristics

	Item	Test condition	Requirement
2.1	Rated zero power resistance R25	$A_t=25\pm 2\text{ }^\circ\text{C}$, Testing voltage $\leq 1.5V_{DC}$;	$50\Omega\pm 20\%$
2.2	Non-trip current	$A_t=25^\circ\text{C}$, 60Vrms/ Non-trip current , 1H	90mA $ \Delta R/R_n \leq 50\%$
2.3	Operating current	$A_t=25\pm 2\text{ }^\circ\text{C}$, 220Vrms /300S into high resistance	190mA
2.4	Operating time	Ambient Temperature: $25 \pm 2\text{ }^\circ\text{C}$ Supply Voltage: 220Vrms	$1A \rightarrow 0.5A < 1S$
2.5	Curie-temperature(T_c)	2*R25 corresponded to temperature	$120^\circ\text{C} \pm 7\text{ }^\circ\text{C}$
2.6	Rated voltage	/	220VAC

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2.7	Impact resistance current capacity	<p>At=25±2 °C Short circuit current waveform :100μs The minimum open circuit voltage: 1.5KV Internal resistance 40 ohms Spacing interval: 60s repeat 5 times. Recovery 4-5 hours under normal temperature</p>	<p>10/700μs $\Delta R/R_n \leq \pm 20\%$</p>
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3. Reliability

NO.	Item	Requirement	Test measurement
3.1	Appearance	No visible damage, clear marking	Visual testing
3.2	Solderability	At least 95% of terminal electrode covered by new solder	Refer to IEC68-2-20(GB2423.28) Ta Dip each lead into 235±5°C solder for 3~5sec to the 5mm above body
3.3	Resistance to solder heat	$ \Delta R/R_n \leq 20\%$ No damage observed	Refer to IEC68-2-20(GB2423.28) Tb Dip each lead into 260±5°C solder for 5±1S to 3mm above body. Recheck Rated zero power resistance after 4-5 hours recovery under normal temperature often wet condition.
3.4	Tensile strength of terminal	$ \Delta R/R_n \leq 20\%$ No damage observed	Refer to IEC68-2-21(GB2423.29) Test Ua: Pull force 10N, for 10 sec. Test Ub: Bending 90°, pull force 5N, twice Test Uc: Rotating 180°, twice. Recheck Rated zero power resistance after 4-5 hours recovery under normal temperature often wet condition.
3.5	Flame retardant		Refer to IEC695-2-2

4. Standard Packaging (reference)

- taping and box: 1000pcs / box

5. Storage Condition of Products

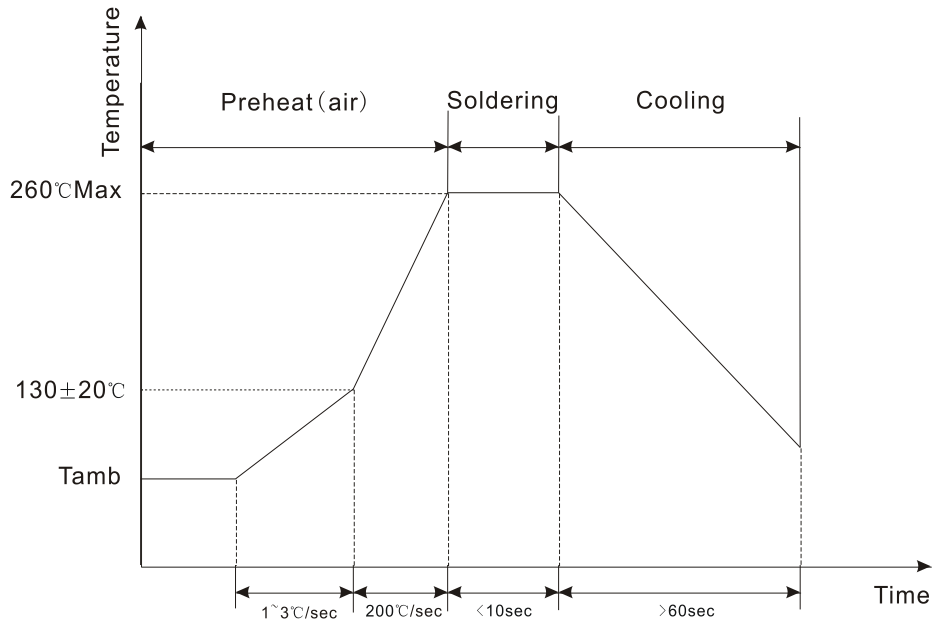
Storage temperature	-40~60°C
Relative humidity	≤95%HR (+40°C)
Barometric pressure	86 ~106Kpa
Vibration frequency	10 Hz ~50Hz~10 Hz
Collision	100m/s ² : 16ms
Other requirement	No acid, alkali and reducing atmosphere

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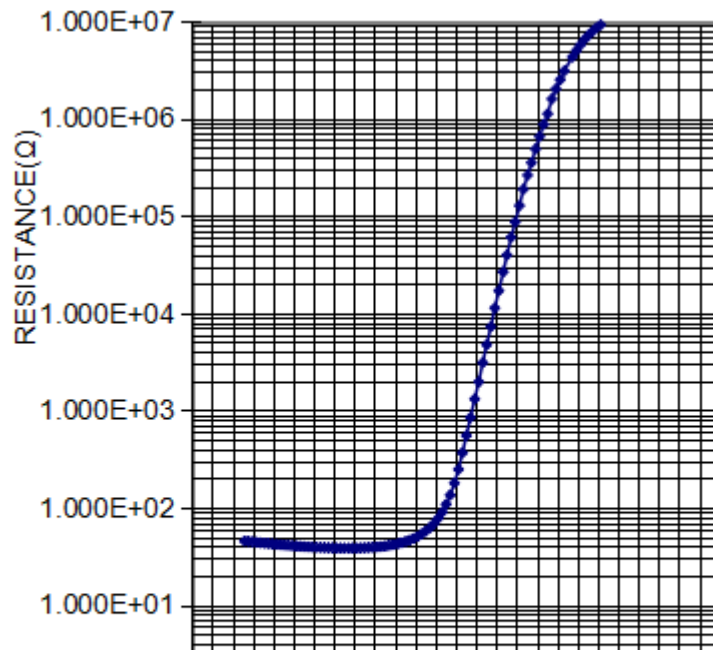
6.Recommended Reworking Conditions With Soldering Iron

Welding condition	reference craftwork
Soldering iron temperature	360°C(max)
Soldering time	2sec(max)
Distance to coating material	6mm (min)

7.Wave Flow Soldering Profile



8.Resistance-Temperature Curve



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9. Attention & Declaration

9.1 PTC thermistor is designed under normal environment, so do not use in following environment

- A、Corrosiveness or reducibility gas, (Cl₂、H₂S、NH₃、SO_x、Noxetc.)
- B、volatile gas
- C、The place which directly contact with water and easy to icing
- D、The place which is put brine, oil, liquid medicine.
- E、The place which vibrates badly

9.2. In high impedance state, the temperature itself will surpass 120°C, so confirm whether it has influence to other parts.

9.3 It is ceramic product; fall will make the components fracture and damage because of excessive extrusion

9.4 This specification approval is to assure the quality of each unit, estimate under the situation when the components are fixed to the customer's products.

9.5 PTC thermistor is designed according to the appointed function, so do not violate the rule

9.6 If there is any doubtful point, please notice our company asap.

9.7 If this specification is confirmed by customer, post back according to the cover address, if not, we will treat that the customer has confirmed the specification.

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