

# TAYAO NTC THERMISTOR SPECIFICATION FOR APPROVAL

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# TAYAO NTC THERMISTOR SPECIFICATION FOR APPROVAL

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## 1. PART NO. : SC009-0053EMLIJJ02

## 2. Explanation of Part Number

XX   XXX — ABC   DE   X   X   X   XXXX  
①        ②                    ③        ④        ⑤        ⑥        ⑦        ⑧

① TYPE :

SC = Surge current

② Disc Diameter :

005=Φ5 , 008=Φ8 , 010=Φ10 , 013=Φ13 , 015=Φ15 , 020=Φ20 , 030=Φ30

③ Resistance (25°C) :

Example : ABC=005 → 5Ω , ABC=050 → 50Ω  
              ABC=100 → 100Ω , ABC=2R5 → 2.5Ω

④ Current (Max. steady state) :

Example : DE=01 → 1A , DE=09 → 9A  
              DE=10 → 10 A , DE=30 → 30A  
              DE=2E → 2.5 A

⑤ Resistance Tolerance :

L = ±15% , M = ±20%

⑥ Lead Condition :

— = leaded , L = lead free

⑦ Leading Wire :

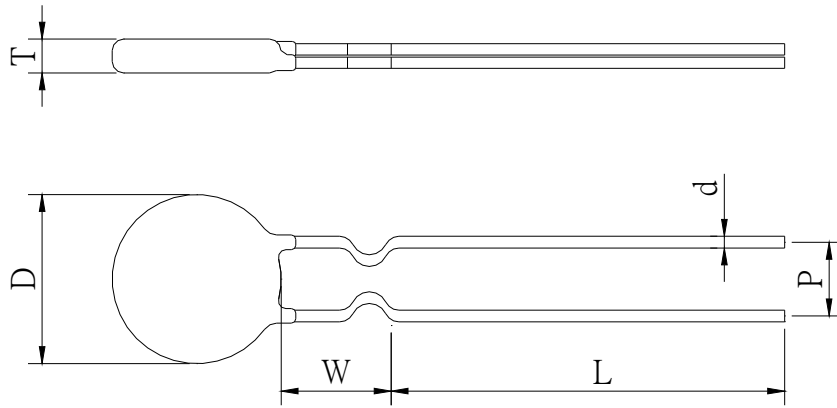
S = Straight , I = Kink

⑧ Product Code :

For different dimension , appearance , etc.

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## 3. Dimension



ITEM	D (mm)	L (mm)	d (mm)	P (mm)	W (mm)	T (mm)
MAX.	10.0	---	0.62	5.5	6.0	5.0
MIN.	---	25.0	0.58	4.5	---	---

- a. Material of Coating : Silicone
- b. Material of Leads : ( Cu,Fe,Sn ) Material
- c. Color of Coating : Black

## 4. Electrical Characteristic

	Item	Conditions	Max. Rated Value
a	Zero Power Resistance	Ta=25±0.2 °C , I≤0.5mA	5.0Ω ± 20 %
b	Rated Temperature	In still air	- 40°C → + 180°C
c	Max. Permissible Working Current	Ta=25 °C	3.5 Amp
d	Beta Value	(R25 / R85)	2900 ± 10 %
e	Thermal Time Constant	Ta=25 °C	41 Sec.(Approx.)
f	Thermal Dissipation Constant	Ta=25 °C	12mW/°C (Approx.)
g	Max Capacitance	AC240V	220 μF
h	Max Power Rating	at 25°C	2.7 w
i	Insulation Test	DC 500V	Above 100MΩ

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## 5. Reliability Test

TECHNICAL TERMS	DESCRIPTIONS	SPECIFICATION
High Temperature Storage	The Sample Is Exposed In Air At $+85\pm 2^{\circ}\text{C}$ For $1,000\pm 12$ hrs Storage	Maximum Resistance Change: $\pm 15\%$ Of Initial
Low Temperature Storage	The Sample Is Exposed In Air At $-40\pm 3^{\circ}\text{C}$ For $1,000\pm 12$ hrs Storage	Maximum Resistance Change: $\pm 15\%$ Of Initial
Temperature Cycle Test	Thermistor Shall Be Subjected To The Following 5 Cycles : At $-40\pm 3^{\circ}\text{C}$ For 30 Min.-> Room Temp. 5 Min.-> And $+90\pm 2^{\circ}\text{C}$ For 30 Minutes. After The Cycles. The Thermistor Shall Be Returned To And Stabilized At Room Ambient Temp.	Maximum Resistance Change : $\pm 15\%$ Of Initial
Humidity Resistance	Thermistor Shall Be Stored For $1,000 \pm 12$ Hours At $40\pm 2^{\circ}\text{C}$ , 90-95% Rh With No Current Applied. After The Storage Period The Thermistor Shall Be Returned To And Stabilized At Room Temp.	Maximum Resistance Change: $\pm 15\%$ Of Initial.
Load Life Test	Thermistor Shall Be Stored For $1,000\pm 12$ hours At Room Temp With The Maximum Rated Applicable Steady State Current Applied. After The Storage Period. To And Stabilized At Room Temp.	Maximum Resistance Change: $\pm 15\%$ Of Initial.
Surge Current Life	Thermistor Shall Be Subjected The Following 1,000 Cycles. -Surge Current: Max Steady State Current. -Interval : 5 min After The Cycles .The Thermistor Shall Be Returned To.	Maximum Resistance Change: $\pm 15\%$ Of Initial.

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## 6. Mechanical Test

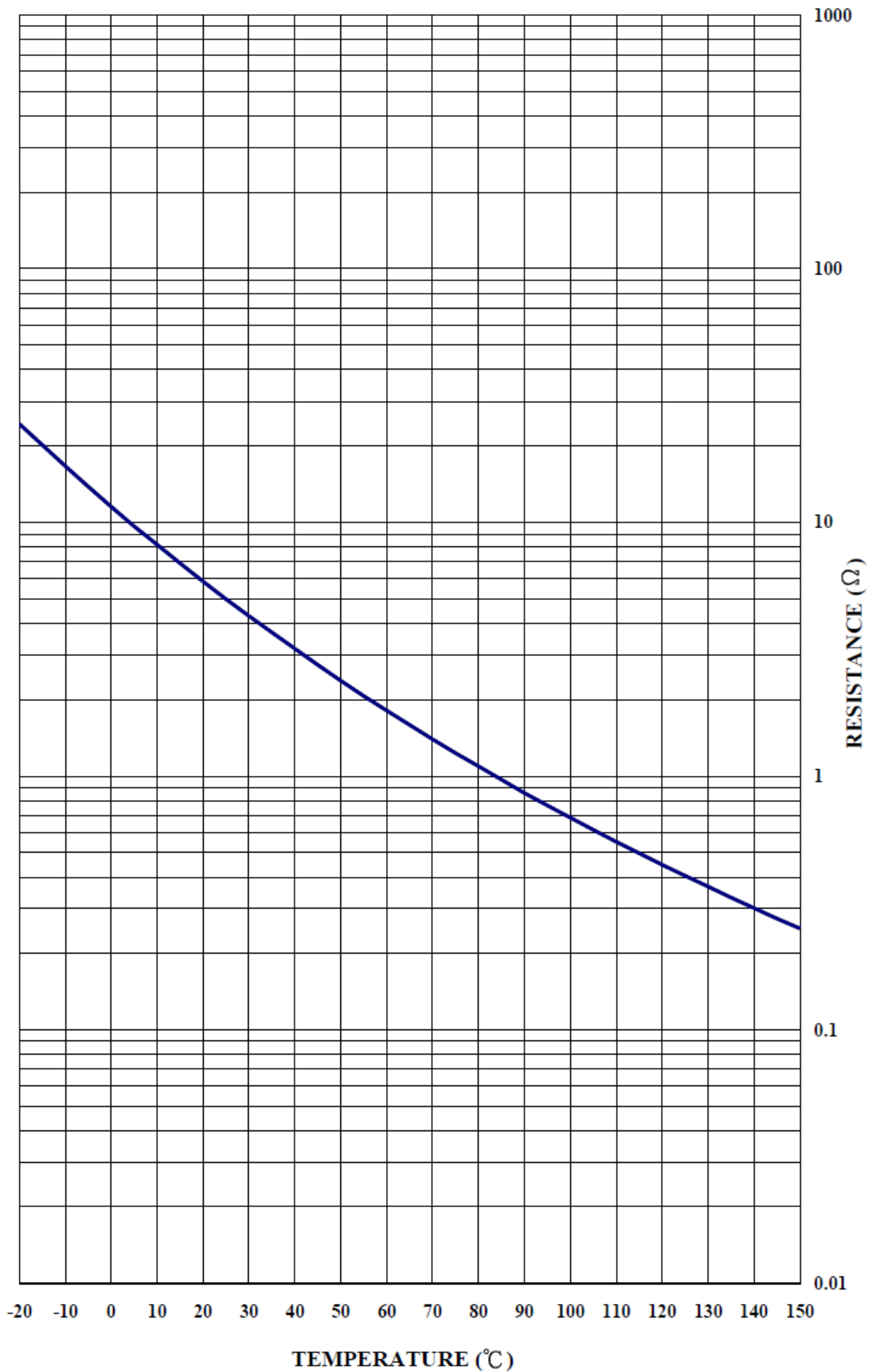
TECHNICAL TERMS	DESCRIPTIONS	SPECIFICATION
Lead Full Strength	After Gradually Applying The 1kgf Load And Keeping The Unit Fixed For 10 Secs. In The Axial Direction The Lead Shall Be Visually Examined For Any Damage	No Outstanding Damage.
Solderability	When The Lead Wire Of Thermistor Was Dipped Into Solder (Sn98:Ag2) Bath Of 245- 5°C For 10 Seconds After Immersion In 10~15%Resin Flux. The Solderability Ratio Of Lead Wire Surface Should Be More Than 95%	More Than 95% Solderability
Soldering Heat Resistance	The Lead Wire Of The Thermistor Shall Be Dipped With >10mm Space Of 260+5°C For 3 Sec, Returned To And Stabilized At Room Temp.	Maximum Resistance Change: ± 15% Of Initial.

## 7. Storage

- The products should be kept packed and stored at a temperature of -40~40°C and a Humidity of 25~85% RH.
- The products should not be left the place affected by direct sunlight and harmful gas (Chlorine, sulfur, etc.).

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## 8. RT-Curve



**TAYAO Technology CO., LTD.**  
NTC-THERMISTOR

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## 9. VI-Curve

