SPECIFICATION FOR APPROVAL

CUSTOMER

PART NO. PTCR10-120-8R0N265S5

APPLICATION

CUSTOMER P/N

ISSUE DATE July 25, 2018

REV. NO 1.0

REV. DATE

FOR CUSTOMER APPROVAL	CHECKED BY
	APPROVED BY

Establishment / Revision Record

REV. No.	REV. DATE	REVISED CONTENT
1.0	July 25, 2018	First Estabilshment

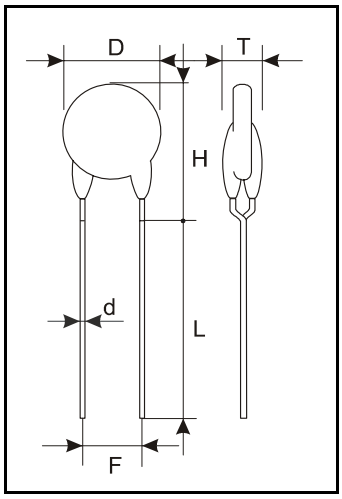
Technical Data

PTCR Thermistor Specifications

1 Part No. PTCR10-120-8R0N265S5

2 Dimensions

T max.	5.0
D max.	11.0
H max.	16.0
L min	25.0
F	5.08 ± 1.0
d	0.6 ± 0.1



3 Electrical Characteristics

Item	Rated Value	Test Method
Zero Load Resistance	8Ω ± 25%	Measure the resistance value with a DC voltage less than 2.5V at 25°C ±2°C ($\triangle R/R_0$ ≦25%)
CurieTemperature	115°C ± 7°C	
Rated Voltage	AC220 V rms	
Maximum Voltage	AC265 V rms	
Maximum Current	1.2 Amp	220Vrms & 1.2A condition at 25°C ± 2°C for 1 Min.
Non-Operation Current	150 mA △R/Rn≤ | ±50% |	Connect to 220Vrms & 150mA condition at 60°C ± 2°C, after 1 hour the resistance change less than ± 30%
Switching Current	350 mA	Switching to high resistance at 350mA at 25°C ±2° C & Voltage 220Vrms within 5 Min.
Max Current Cycle Test	1.2A / 220Vrms (20 Times)	Connect to 220Vrms & 1.2A condition at 25°C ± 2°C, for 1 Min. Connect again after 10 Min. The resistance change less than ±30% after 20 Times cycle
Switching Time	≦ 10 Sec	Supply 220Vrms Voltage and maximum current to the test circuit of Fig 1 at 25°C ± 2°C
Recover Time	≦ 80 Sec	Supply 220Vrms Voltage and maximum current to the test circuit of Fig 1 at 25°C ±2°C
Withstanding Voltage	No Damage	Supply 220Vrms for 3 Min. to the test circuit of Fig 1
Current Against	10/1000us (30 Times) ΔR/Rn ≤ | ±25% |	Short circuit current waveform 10/1000us Min. open circuit voltage 1000V, Peak short circuit current 5A, The intermission time 3Min. Test for 30 cycles, After 4 - 5 hour Measure the resistance value change less than ±25%
Humidity Life#	$\triangle R/R_{25}$ ≦ ±25% No Damage	PTC thermistor is set in an environmental chamber at 40°C ± 2°C & 90 ～ 95% humidity for 500 ± 4 Hours
Humidity Load Life#	$\triangle R/R_{25}$ ≦ ±25% No Damage	Supply reated Voltage at 40°C & 90 ～ 95% RH for 1,000 ± 10 Hours at intervals of 1.5 Hours "ON" and 0.5Hour "OFF" to the test circuit of Fig 1

Resistance is measured in 24 hours after testing

Technical Data

PTCR Thermistor Specifications

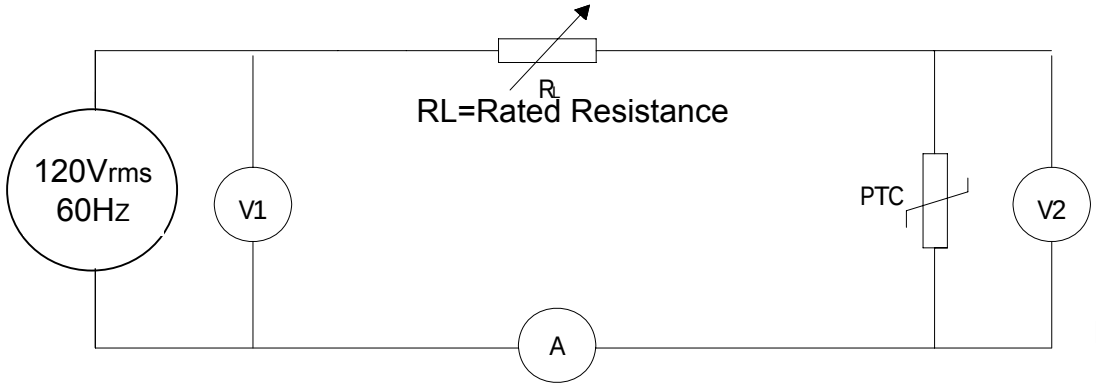


Fig. 1 Test Circuit

4 Mechanical Characteristics

Item	Rated Value	Test Method
Lead pull strength	No Damage	Fasten the body and apply the load of 1kg axially to each lead for 5 Sec.
Lead bend strength	No Damage	Fasten the body and apply the load of 0.5kg to one lead, bend the body to a horizontal position by 90^0 and return it to the initial vertical position. Bend it to the opposite horizontal position and back to the initial position. Repeat the test for other lead.
Solder heat resistance#	$\Delta R/R_{25} \leqq \pm 20\%$ No Damage	Dip each lead in the soldering bath of 350°C ± 10° C for 3 sec. Up to 3mm from the body, measure the resistance of thermistor after 24 hours.
Solder ability	Min. 75% of lead are covered with solder	Dip each lead in the flux (25% resin, 75% methanol) for 5 Min. and then into the soldering bath of 230°C ± 10°C for 3 sec. Up to 3mm from the body.
Vibration resistance#	$\Delta R/R_{25} \leqq \pm 20\%$ No Damage	Fasten the body to baseboard with solder and supply oscillation at frequency from 10 ～ 55Hz and back in about 1 Min. with the oscillation width of 1.5mm for 2 hours in each of 3 mutually perpendicular plane respectively.

Resistance is measured in 24 hours after testing

5 Part Numbering System

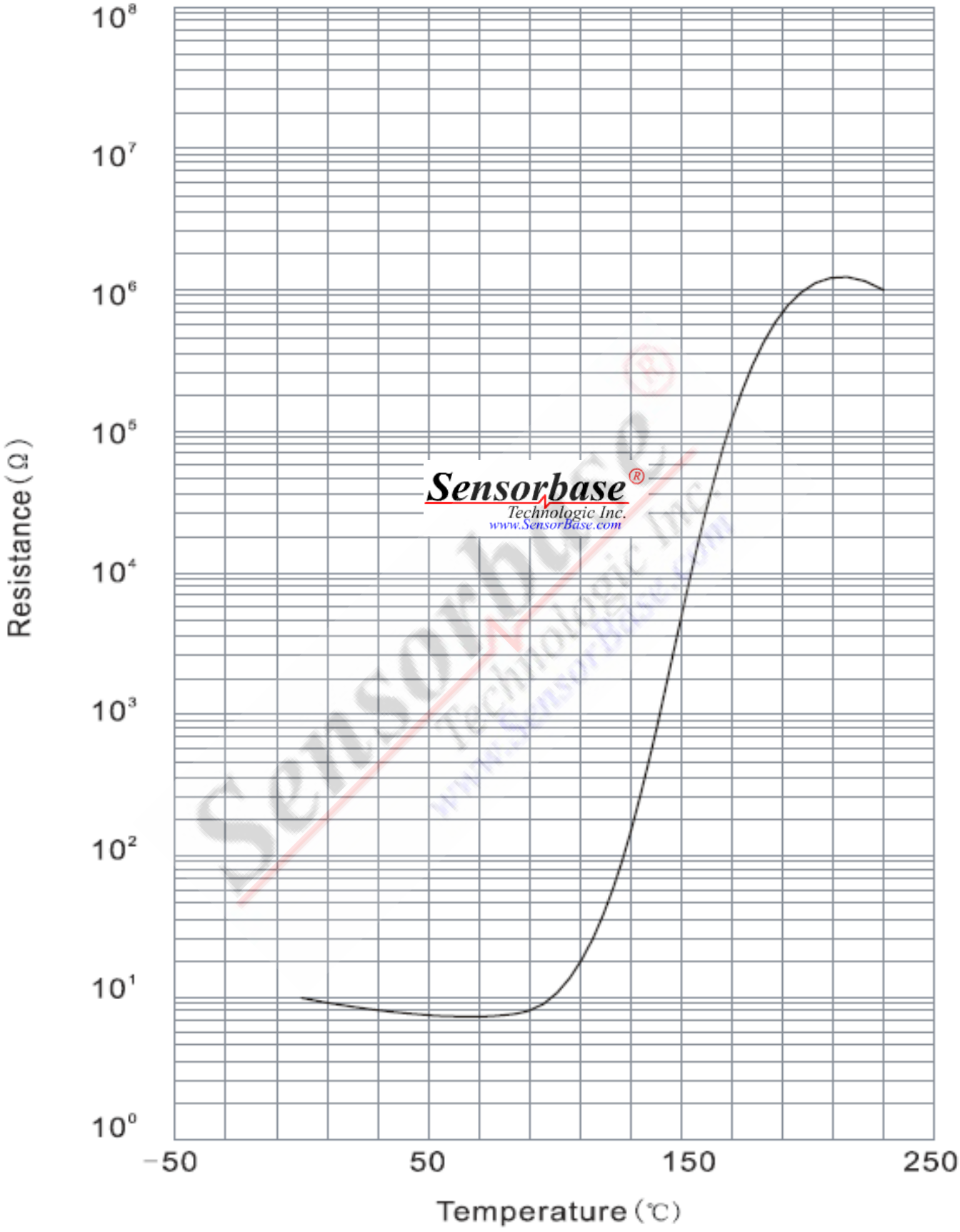
PTCR	10	120	8R0	N	265	S	5

- 5 — Lead Spacing Code (5=5.08, 7=7.5, 10=10.16)
- S — Lead Style Code (see below Item 9)
- 265 — Operating Voltage Code
- N — Resistance Tolerance Code (at 25℃)
- 8R0 — Resistance Code (at 25℃)
- 120 — Switching Temperature Code (120=120℃)
- 10 — Disk Diameter Code (10 = 10mm)
- PTCR — **Sensorbase** PTCR Series Code

* All coding please see Coding page

Sensorbase® Technologic Inc. www.SensorBase.com

6 Resistance / Temperature Curve



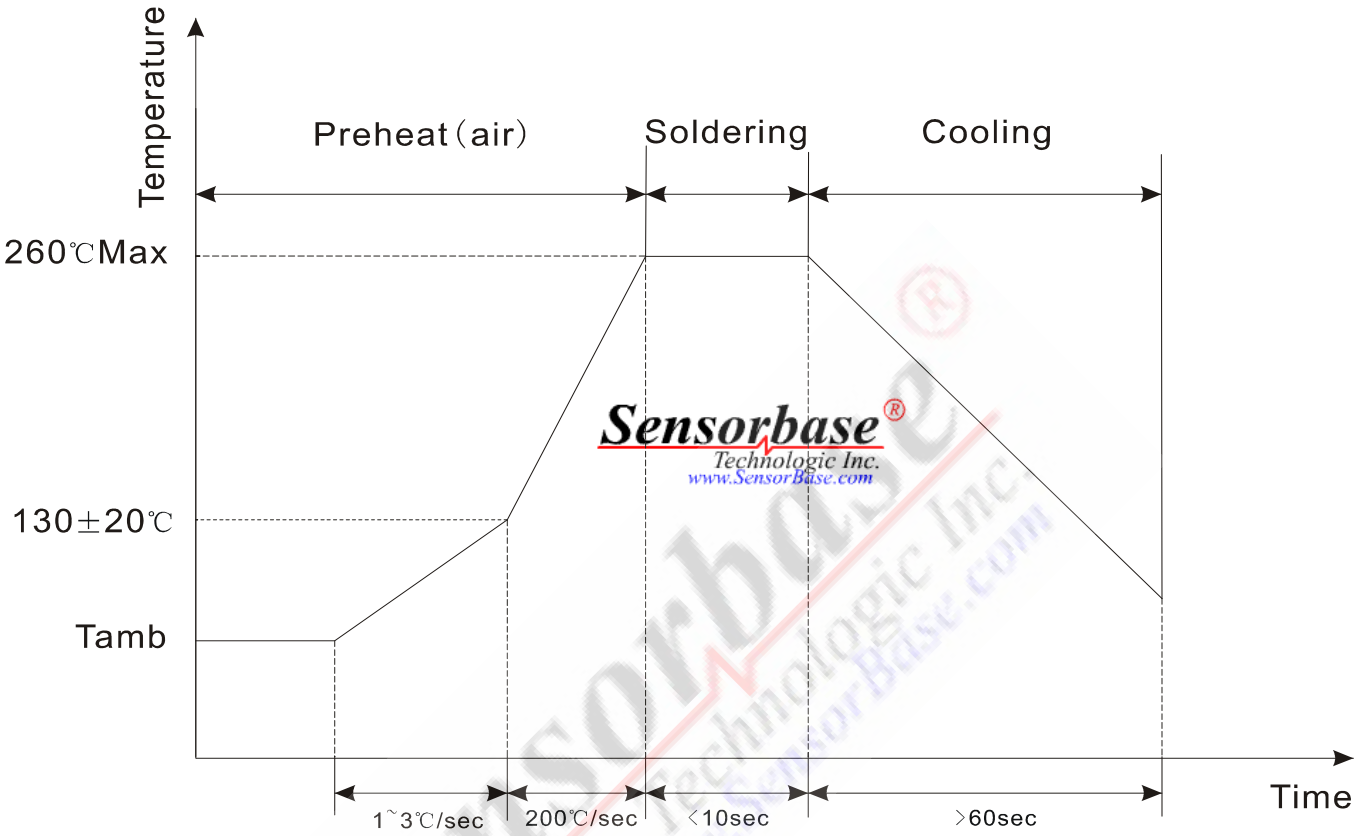
Technical Data

PTCR Thermistor Specifications

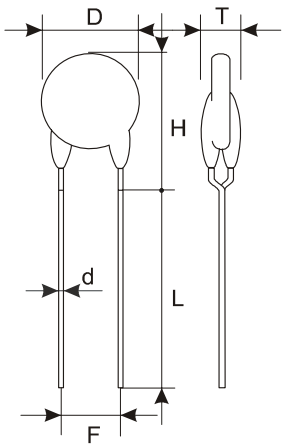
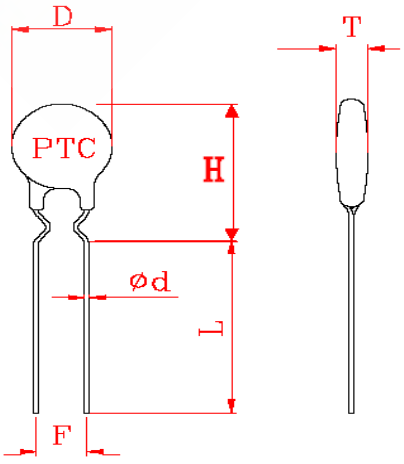
7 Recommended Reworking Conditions With Soldering Iron

1. Soldering Temperature 350℃ (Max.)
2. Soldering Time 2 Sec. (Max.)
3. Soldering Distance to Body 6mm (Min.)

8 Wave Flow Soldering Profile



9 Lead Style

S Style	K Style
	
Straight Lead	Inward Lead