THINKING ELECTRONIC INDUSTRIAL CO., LTD.

SPECIFICATION   FOR   APPROVAL

CUSTOMER	Ozdisan.
CERTIFIED MODEL/TYPE	PTSY0101R100
PART NO.	PTSY0101R100YHS(RoHS)
APPLICATION	
CUSTOMER P/N	
ISSUE DATE	Apr.18.2019
REV. NO.	1.1
REV. DATE	Aug.16.2019

FOR CUSTOMER APPROVAL	CHECKED BY
	Haili Gong
	APPROVED BY
	Huaifang Zhang

REVISED RECORD SHEET

REV. NO	REV. DATE	REVISED CONTENT
1.0	2019/4/18	（**New Released**）
1.1	2019/8/16	Change the size of cap from Max3.0mm to Max3.4mm

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## *Part Number Code*

Example :

<table>
<tr>
<td>**PTS**</td>
<td>**Y0**</td>
<td>**101**</td>
<td>**R**</td>
<td>**100**</td>
<td>**YHS**</td>
</tr>
<tr>
<td>**(1)**</td>
<td>**(2)**</td>
<td>**(3)**</td>
<td>**(4)**</td>
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</table>

No.	Item	Digit	Specification
(1)	Product Type	PTS	PTC Thermistor for Sensor
(2)	Type Series	Y0	heat shrinkable sleeve
(3)	Resistance(R_{25})	101	$10*10^1 W = 100\ W$
(4)	Tolerance of R_{25}	R	Refer to "Electrical Characteristics"on page2
(5)	Sensing Temperature	100	100℃
(6)	Optional Suffix	YHS	RoHS compliance & Bulk

Structure and Dimensions
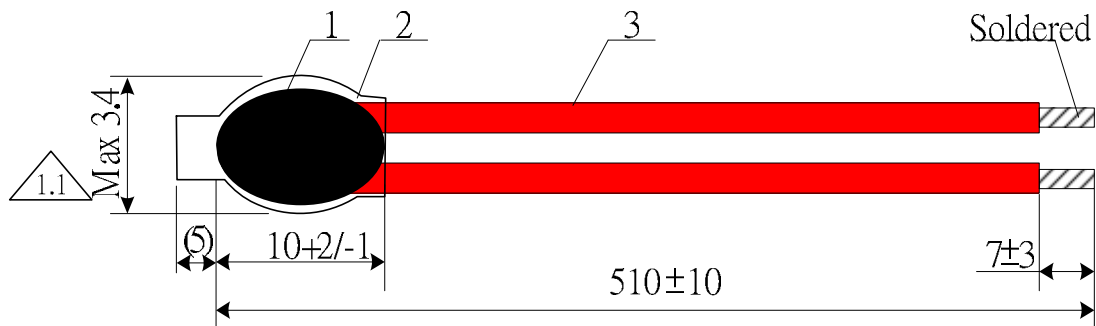
(Unit:mm)

*.THERMISTOR: T44S2101RP83003D

COATING RESIN:BLACK EPOXY

2.LEAD WIRE:UL1332#30TS Red

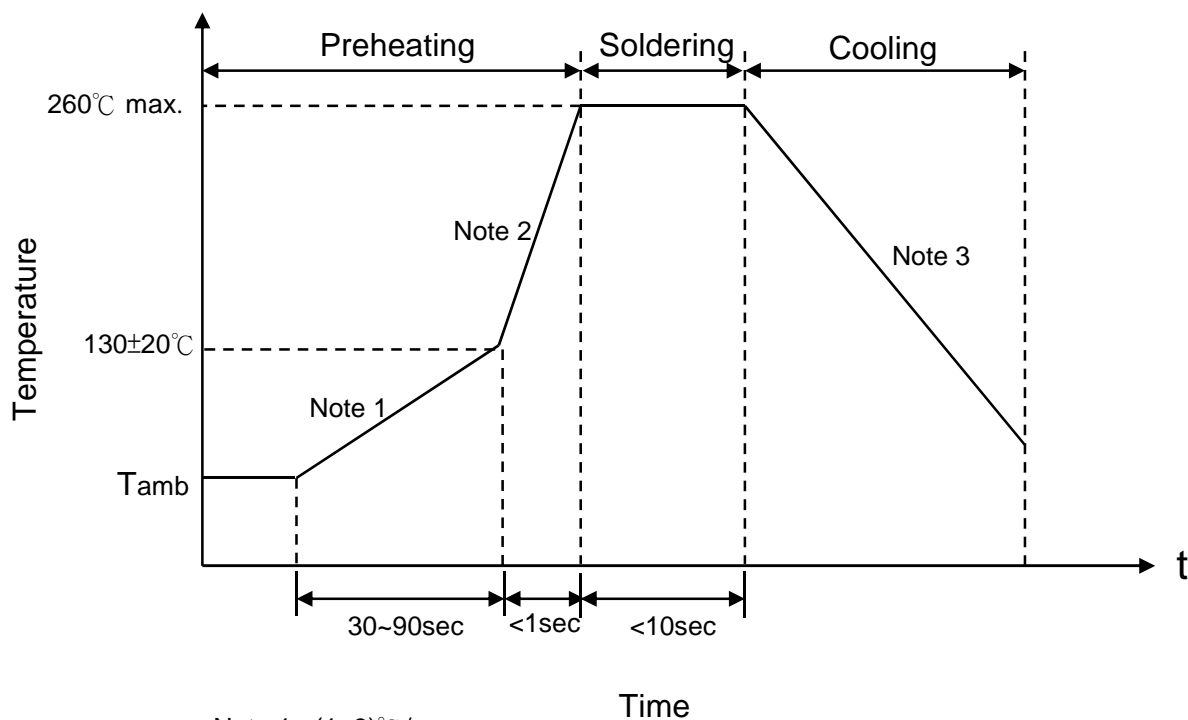3.TUBE:2.4mm KYNAR TUBE

Electrical Characteristics

Part no.	Sensing Temperature	Resistance Value				Max. Voltage	Insulating Withstand Voltage	Operating Temperature Range
	Ts (℃)	25℃ (Ω)	RTS-5 (Ω)	RTS+5 (Ω)	RTS+15 (Ω)	Vmax (V)	(KV)	(℃)
PTSY0101R100YHS	100℃	≦100Ω	≦550Ω	≧1330Ω	≧4000Ω	30V	2.5	0~125

Reliability

Item	Standard	Test conditions / Methods	Specifications
Robustness of Terminations	IEC 60738-1	Gradually apply the specified force and keep the unit fixed for 10±1 sec. Terminal diameter (mm)　　　Force T±10% (N) 0.35<d≦0.5　　　　　5.0 0.5<d≦0.8　　　　　10.0	$\|\triangle R_{25}/R_{25}\|\leqq 20\%$ No visible damage
Solderability	IEC 60738-1	245 ± 3 ℃ , 2 ± 0.5 sec	At least 95% of terminal electrode is covered by new solder
Resistance to Soldering Heat	IEC 60738-1	260 ± 3 ℃ , 10 ± 1 sec	$\|\triangle R_{25}/R_{25}\|\leqq 20\%$ No visible damage
Vibration	IEC 60738-1	Frequency range:10~55Hz Amplitude:0.75mm or 98m/S^2 Direction:3 mutually perpendicular directions Duration :6HRS(3x2HRS)	$\|\triangle R_{25}/R_{25}\|\leqq 20\%$ No visible damage
Shock	IEC 60738-1	Wave:half-sine ⊿V:1.0m/s Acceleration:50m/s^2 Pulse time:30ms	$\|\triangle R_{25}/R_{25}\|\leqq 20\%$ No visible damage
Rapid Change of Temperature	IEC 60738-1	The thermal shock conditions shown below shall be repeated 5 cycles Step | Temperature(℃) | Period(minutes) 1 | -40 ± 5 | 30 ± 3 2 | Room temperature | 5 ± 3 3 | 85 ± 5 | 30 ± 3 4 | Room temperature | 5 ± 3	$\|\triangle R_{25}/R_{25}\|\leqq 20\%$ No visible damage
Damp Heat, Steady State	IEC60738-1	40 ± 2℃ , 9 0~95%RH , 1000 ± 2 hrs	$\|\triangle R_{25}/R_{25}\|\leqq 20\%$ No visible damage
Climatic Sequence	IEC60738-1	Dry heat: Ts+25°C for 16 hrs Damp heat first cycle: 40℃, 95% R.H ,cycle time: 24 hrs Cold: 0℃ for 2 hrs Damp heat (cyclic), remaining cycles: 5 cycles Test according to IEC60068-2-30	$\|\triangle R_{25}/R_{25}\|\leqq 20\%$ No visible damage
Endurance at Upper Category Temperature	IEC60738-1	Ts+25℃, for 1000±2hrs	$\|\triangle R_{25}/R_{25}\|\leqq 20\%$ No visible damage
Endurance at Maximum Operating Temperature and Maximum Voltage	IEC60738-1	Ts+25℃, Vmax, Imax for 1000±2 hrs	$\|\triangle R_{25}/R_{25}\|\leqq 20\%$ No visible damage

Soldering Recommendation

■ **Wave Soldering Profile**

Note 1 : (1~3)℃/sec
Note 2 : Approx. 200℃/sec
Note 3 : 5℃/sec Max

■ **Recommended Reworking Conditions with Soldering Iron**

Item	Conditions
Temperature of Soldering Iron-tip	360℃ (max.)
Soldering Time	3 sec (max.)
Distance from Thermistor	2 mm (min.)

RoHS Compliant Declaration

We hereby declare that the components delivered to your company are compliant with RoHS directive 2015/863/EU.

Warehouse Storage Conditions of Products

(I) Storage Conditions :

1.Storage Temperature : -10℃~+40℃

2.Relative Humidity : ≦75%RH

3.Keep away from corrosive atmosphere and sunlight.

(II) Period of Storage : 1 year

Safety Approvals **(Certified Model/Type :PTSY0101R100)**

* UL /1434 recognized (File # E138827)

Certificates

(1) IATF 16949 certificate
(2) ISO 9001 certificate

Test Report

(1) RoHS test report

Install and use

1. Use this product within the specified temperature range.

2. Higher temperature may cause deterioration of the characteristics or the material quality of this product.

3. Do not melt the solder in resin head, when you solder this product. If you melt the solder in resin head, it has possibility that the break of wire, short and insulation damage.

4. Do not touch the resin head directly by solder iron. It may cause the melt of solder in resin head.

5. At least away from resin head 10mm above when lead dividing.

6. In case you cut the lead wire of this product less than 10mm from resin head, the heat of melted solder at lead wire edge is propagated easily to the resin head along the lead wire.

7. Radius of lead bending should be more than 1mm when lead bending. Holding element by side lead wire is recommended when lead wire is bent or cut.

8. Do not apply an excessive force to the lead. Otherwise, it may cause junction between lead and element to break or crack.

9. The ceramic element of this product is fragile, and care must be taken not to load an excessive press-force or not to give a shock at handling. Such forces may cause cracking or chipping.

10. If you mold by resin this product, please evaluate the quality of this product before you use it.

Warehouse Storage Conditions of Products

To keep solderability of product from declining, the following storage condition is recommended.

1. Storage condition:

Temperature -10℃ to +40℃

Humidity less than 75%RH (not dewing condition)

2. Storage term:

Use this product within 1 year after delivery by first-in and first-out stocking system.

3. Handling after unpacking:

After unpacking, reseal product promptly or store it in a sealed container with a drying agent.

4. Storage place:

Do not store this product in corrosive gas (Sulfuric acid gas, Chlorine gas, etc.) or in direct sunlight.

Warn and note item

This product is designed for application in an ordinary environment (normal room temperature, humidity and atmospheric pressure).

Do not use under the following conditions because all of these factors can deteriorate the product characteristics or cause failures and burn-out.

1. Corrosive gas or deoxidizing gas (Chlorine gas, Hydrogen sulfide gas, Ammonia gas, Sulfuric acid gas, Nitric oxide gas, etc.)

2. Volatile or flammable gas

3. Dusty conditions

4. Under vacuum, or under high or low pressure

5. Wet or humid locations; soak in the liquid or wash with liquid

6. Places with salt water, oils, chemical liquids or organic solvents and do not use directly with quick-drying glue.

7. Strong vibrations

8. Other places where similar hazardous conditions exist

9. Be sure to provide an appropriate fail-safe function on your product to prevent secondary damages that may be caused by the abnormal function or the failure of our product.

Resistance-Temperature Curve

For Reference Only