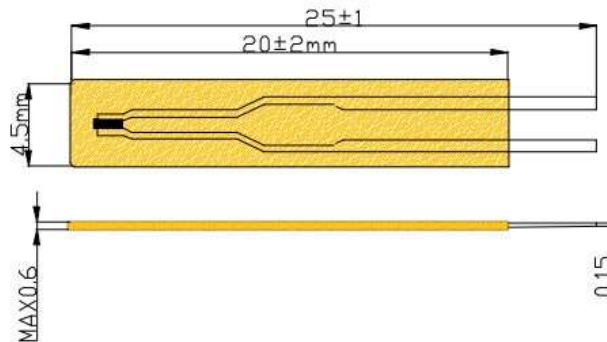


APPLICATION: BATTERY PACK, IN HIGH TEMPERATURE APPLICTIONS. POWER ELECTRONICS, HEAT SINK AND CONSUMER ELECTRONICS.

Product Drawing



Electrical Specification

Sl No	Description	Test Condition	Min	Nor	Max	Unit
1	Resistance @25°C	T: 25°C ±0.03°C I _{max} : 0.1mA	9900	10000	10100	Ω
2	β Value(25/85):	T: 25°C ±0.03°C T: 85°C ±0.03°C I _{max} : 0.1mA	3400.65	3435	3469.35	K
3	Insulation Resistance	Insulation resistance between element & covering moulding will be minimum of 100 MΩ.	100	---	---	MΩ
4	Dielectric Voltage strength	The sensor will pass Dielectric test at 1000VAC for 1 second.	---	1000 AC	---	V
5	Dissipation Factor	in air	---	Approx. 3.5	---	mW/°C
6	Thermal Time Constant	in air	---	Approx. 5		s
7	Maximum Power Rating	At 25°C	---	---	5	mW
8	Operating Temperature	---	-30	---	120	°C

RT CHART

Temp (°C)	Res (kΩ) Nom	Temp (°C)	Res (kΩ) Nom	Temp (°C)	Res (kΩ) Nom	Temp (°C)	Res (kΩ) Nom
-40	203.22	20	12.10	70	2.23	120	0.60
-30	116.95	25	10.00	80	1.67		
-20	69.90	30	8.31	85	1.45		
-10	43.21	40	5.82	90	1.27		
0	27.54	50	4.16	100	0.97		
10	18.03	60	3.02	110	0.76		

Soldering

1. Soldering Temperature: 260°C Max.
2. Soldering Duration: 6.0 Second Max.
3. Preheat Temperature: 160°C for 3.0 Sec.

Reliability tests

1. Dry Heat

After the test samples were exposed in air at 95 °C for 1,000 hours, the change ratio of the rated zero-power resistance shall be within $\pm 1\%$ of the initial value.

2. Damp heat

After the test samples were exposed in the humidity of 95% at 40°C for 1,000 hours, the change ratio of the rated zero-power resistance shall be within $\pm 1\%$ of the initial value.

3. Cold

After the test samples were exposed in air at -30°C for 1,000 hours, the change ratio of the rated zero-power resistance shall be within $\pm 1\%$ of the initial value.

4. Humidity load

After DC 1mA current was applied to the test samples in the temperature of 40°C and the humidity of 95% for 1,000 hours, the change ratio of the rated zero-power resistance shall be within $\pm 2\%$ of the initial value.

5. Change of temperature

One cycle of the change of temperature shall be carried out in the order of the following conditions.

- Room ambient temperature.(Initial value)
- At -30°C, for 30 minutes.
- Room ambient temperature, for 3 minutes.
- At + 90°C, for 30 minutes.
- Room ambient temperature, for 3 minutes.

After 100 cycles of change of temperature, the change ratio of the rated zero-power resistance shall be within $\pm 1\%$ of initial value.

6. Robustness of Terminations (Tensile to horizontal direction)

Hold the thermistor body so that lead wire shall be horizontal. After 1kg loading weight was applied to the lead wire horizontally for 10 seconds, there shall be no visible damage.

7. Free fall

After three times natural fall to a maple board from 50cm high, there shall be no visible damage.

Special Note

Product comply with RoHS directive.

This document is confidential and contains proprietary information and intellectual property of **THERMOSEN TECHNOLOGIES PVT. LTD.** Neither this document nor any of the information contained herein may be reproduced or disclosed under any circumstances without the express written permission of **THERMOSEN TECHNOLOGIES PVT. LTD.** Please be aware that disclosure, copying, distribution or use of this document and the information contained therein is strictly prohibited.