



NTC Thermistor

PRODUCT DATA

Temperature Compensation/Sensing DHT Series (Glass Encapsulated Axial Type)

Features

1. Body size $\phi 2\text{mm} \times 4\text{mm}$
2. Axial lead glass-sealed
3. $-40 \sim +300^\circ\text{C}$ operating temperature range

Recommended applications

1. Home appliances (air conditioner, refrigerator, electric fan, electric cooker, washing machine, microwave oven, drinking machine, CTV, radio.)
2. Automotive electronic
3. Heater

Approvals

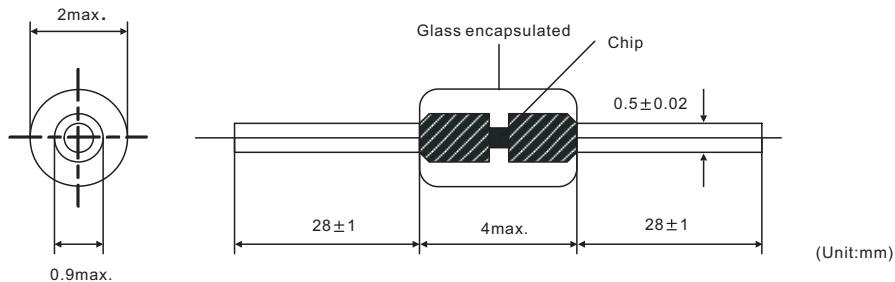


* UL 1434 Recognized (File#E138827)

* cUL Recognized (File#E138827)



Dimensions



Characteristics

Part no.	Zero power resistance at 25°C (K Ω)	Tolerance of resistance ($\pm\%$)	B value (K)		Tolerance of B value ($\pm\%$)	Max. power rating at 25°C (mW)	Thermal dissipation constant (mW/°C)	Thermal time constant (Sec.)	Operating temperature range (°C)
			25/50	3550					
DHT0B502□355*	5	1、2、3、5、10	25/50	3550	1、2、3	120	≥ 2	≤ 10	-40 ~ +200 (Sn-plated CP wire) -40 ~ +300 (Ni-plated CP wire)
DHT0B103□355*	10		25/50	3550					
DHT0B103□395*	10		25/50	3950					
DHT0A103□34D*	10		25/85	3435					
DHT0A103□327*	10		25/85	3270					
DHT0A103□370*	10		25/85	3700					
DHT0B103□347*	10		25/50	3470					
DHT0A103□39H*	10		25/85	3975					
DHT0B203□395*	20		25/50	3950					
DHT0B303□395*	30		25/50	3950					
DHT0B473□395*	47		25/50	3950					
DHT0B503□395*	50		25/50	3950					
DHT0B104□395*	100		25/50	3950					
DHT0B104□400*	100		25/50	4000					
DHT0A104□39H*	100		25/85	3975					
DHT0A104□430*	100		25/85	4300					

Note 1: □ = Tolerance of resistance

Note 2: * = Tolerance of B value



● Reliability test

Item	Test Conditions/Methods	Specifications															
Tensile Strength of Terminations	<p>Gradually applying the force specified below to each terminal and keeping the unit fixed for 10±1 sec.</p> <table border="0" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">Terminal diameter (mm)</td> <td style="text-align: center;">Force (Kg)</td> </tr> <tr> <td style="text-align: center;">0.3<d≤0.5</td> <td style="text-align: center;">0.5</td> </tr> </table>	Terminal diameter (mm)	Force (Kg)	0.3<d≤0.5	0.5	No visible damage											
Terminal diameter (mm)	Force (Kg)																
0.3<d≤0.5	0.5																
Bending Strength of Terminations	<p>Hanging the force specified below to each terminal and gradually bending each terminal by 90° in one direction, then 90° in the opposite direction, and again back to the origin.</p> <table border="0" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">Terminal diameter (mm)</td> <td style="text-align: center;">Force (Kg)</td> </tr> <tr> <td style="text-align: center;">0.3<d≤0.5</td> <td style="text-align: center;">0.25</td> </tr> </table>	Terminal diameter (mm)	Force (Kg)	0.3<d≤0.5	0.25	No visible damage											
Terminal diameter (mm)	Force (Kg)																
0.3<d≤0.5	0.25																
Solderability	235 ±5°C , 2±0.5 sec	At least 95% of terminal electrode is covered by new solder															
Resistance to Soldering Heat	260±5°C , 10±1sec	No visible damage ΔR/R ≤ 3 %															
High Temperature Storage	300±5°C X1000HRS	No visible damage ΔR/R ≤ 5 %															
Damp Heat	40±2°C, 90~95%RH, 1000±24HRS	No visible damage ΔR/R ≤ 3 %															
Thermal Shock	<p>The thermal shock conditions shown below shall be repeated 5 cycles</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Step</th> <th>Temperature (°C)</th> <th>Period (minutes)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">-40±5</td> <td style="text-align: center;">30±3</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">Room temperature</td> <td style="text-align: center;">5±3</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">300±5</td> <td style="text-align: center;">30±3</td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">Room temperature</td> <td style="text-align: center;">5±3</td> </tr> </tbody> </table>	Step	Temperature (°C)	Period (minutes)	1	-40±5	30±3	2	Room temperature	5±3	3	300±5	30±3	4	Room temperature	5±3	No visible damage ΔR/R ≤ 3 %
Step	Temperature (°C)	Period (minutes)															
1	-40±5	30±3															
2	Room temperature	5±3															
3	300±5	30±3															
4	Room temperature	5±3															
Life Test	25± 5°C, Pmax X 1000 HRS	No visible damage ΔR/R ≤ 5 %															