NTC Thermistor

PRODUCT DATA

■ Temperature Compensation/Sensing TTS Series (Bead Type)

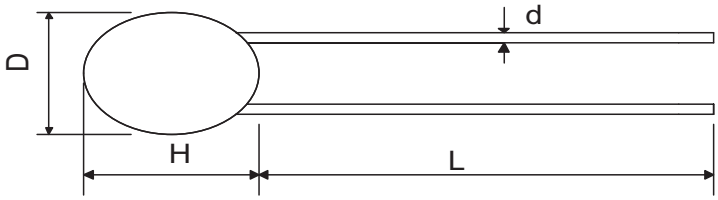
● Features

1. Body size ϕ1.6mm~ϕ2.5mm
2. Radial lead resin coated
3. Long leads for easy sensor placement
4. -40 ~ 100℃ operating temperature range
5. Wide resistance range

● Recommended applications

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

● Dimensions



(Unit: mm)

Part no.	Dmax.	dnor.	Hmax.	Lmin.
TTS1	1.6	0.23	3	80
TTS2	2.5	0.23	3	80

● Characteristics

Part no.	Zero power resistance at 25℃ (KΩ)	Tolerance of resistance (±%)	B value (K)		Tolerance of B value (±%)	Max. power rating at 25℃ (mW)	Thermal dissipation constant (mW/℃)	Thermal time constant (Sec.)	Operating temperature range (℃)
TTS#B502□327*	5	1、2、3、5、10	25/50	3270	1、2、3	45	≧1	≦10	-40 ~ +100
TTS#B502□347*	5		25/50	3470					
TTS#B502□365*	5		25/50	3650					
TTS#B502□395*	5		25/50	3950					
TTS#B103□338*	10		25/50	3380					
TTS#B103□347*	10		25/50	3470					
TTS#B103□395*	10		25/50	3950					
TTS#A103□34D*	10		25/85	3435					
TTS#A103□39H*	10		25/85	3975					
TTS#B203□395*	20		25/50	3950					
TTS#A203□34D*	20		25/85	3435					
TTS#B303□385*	30		25/50	3850					
TTS#A303□395*	30		25/85	3950					
TTS#B503□395*	50		25/50	3950					
TTS#A503□34D*	50		25/85	3435					
TTS#A833□40B*	83		25/85	4015					
TTS#B104□410*	100		25/50	4100					
TTS#A504□427*	500		25/85	4270					

Note 1: # = Body size
Note 2: □ = Tolerance of resistance
Note 3: * = Tolerance of B value

● Reliability test

<table>
<tr><th>Item</th><th>Test Conditions/Methods</th><th>Specifications</th></tr>
<tr><td>Tensile Strength of Terminations</td><td>Gradually applying the force specified below to each terminal and keeping the unit fixed for 10±1 sec.
<table><tr><th>Terminal diameter (mm)</th><th>Force (Kg)</th></tr><tr><td>d≦0.25</td><td>0.10</td></tr><tr><td>0.25<d≦0.3</td><td>0.25</td></tr><tr><td>0.3<d≦0.5</td><td>0.5</td></tr></table></td><td>No visible damage</td></tr>
<tr><td>Bending Strength of Terminations</td><td>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.
<table><tr><th>Terminal diameter (mm)</th><th>Force (Kg)</th></tr><tr><td>d≦0.25</td><td>0.05</td></tr><tr><td>0.25<d≦0.3</td><td>0.125</td></tr><tr><td>0.3<d≦0.5</td><td>0.25</td></tr></table></td><td>No visible damage</td></tr>
<tr><td>Solderability</td><td>235±5℃ , 2±0.5 sec</td><td>At least 95% of terminal electrode is covered by new solder</td></tr>
<tr><td>Resistance to Soldering Heat</td><td>260±5℃ ,10±1sec</td><td>No visible damage
｜△R/R｜≦ 3 %</td></tr>
<tr><td>High Temperature Storage</td><td>100℃X1000HRS</td><td>No visible damage
｜△R/R｜≦ 5 %</td></tr>
<tr><td>Damp Heat</td><td>40±2℃,90~95%RH,1000±24HRS</td><td>No visible damage
｜△R/R｜≦ 3 %</td></tr>
<tr><td>Thermal Shock</td><td>The thermal shock conditions shown below shall be repeated 5 cycles
<table><tr><th>Step</th><th>Temperature (℃)</th><th>Period (minutes)</th></tr><tr><td>1</td><td>-40±5</td><td>30±3</td></tr><tr><td>2</td><td>Room temperature</td><td>5±3</td></tr><tr><td>3</td><td>100±5</td><td>30±3</td></tr><tr><td>4</td><td>Room temperature</td><td>5±3</td></tr></table></td><td>No visible damage
｜△R/R｜≦ 3%</td></tr>
<tr><td>Life Test</td><td>25±5℃, Pmax X 1000 HRS</td><td>No visible damage
｜△R/R｜≦ 5%</td></tr>
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