

TS-93444 (1/2)

1) Jun. 6 '07 MO

SPECIFICATION THERMISTOR

150-103-78011

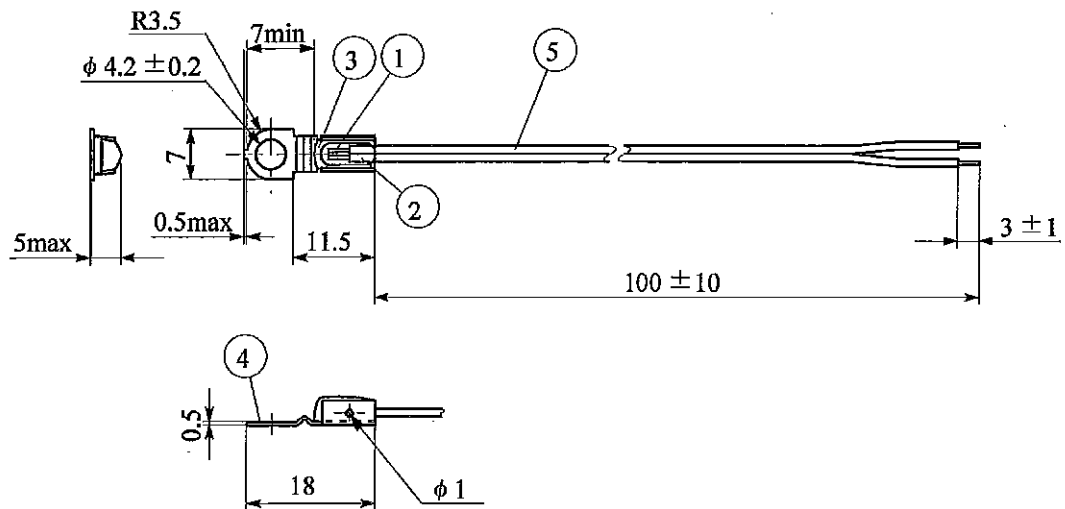
DACHS

1. Scope

This specification applies to a thermistor 150-103-78011.

2. Drawing

Sym.	Part name	Specification & materials	Drawing No.
①	Thermistor	Chip type	
②	Coating resin	Epoxy resin	
③	Adhesive	Heat conductivity epoxy resin	
④	Metal fitting	Pre-tinned brass, Sn plated	TB-6000
⑤	Lead wire	105 °C heat-resistant PVC insulated zip cord □ 0.08 (7/0.12) black, $\phi$ 1.06 × 2	TW-13751
	Solder	Sn-Cu (Pb-free)	



Approved:	<i>A. Tanaka</i>
Checked:	<i>M. Ebina</i>
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**OHIZUMI MFG. CO., LTD.**

### 3. Electrical characteristics

- 3-1. Zero power resistance at 25 °C: R25 10 k  $\Omega$  (tolerance  $\pm$  1 %)
- 3-2. B-value: B25/85 3 435 K (tolerance  $\pm$  2 %)
- 3-3. Thermal time constant ( $\tau$  63.2 %): 30 s Max. (in still air)
- 3-4. Thermal dissipation constant: 3 mW/°C (in still air)
- 3-5. Insulation resistance: 100.M  $\Omega$  Min. with 500 V DC Megger  
(between metal fitting and lead wire)
- 3-6. Dielectric strength  
Shall not be trouble for 1 minute when applied 1 500 V AC.
- 3-7. Operating temperature range: -20 °C to 100 °C
- 3-8. Storage temperature range: -30 °C to 100 °C

### 4. Mechanical characteristics

- 4-1. Tensile strength test  
When 9.8 N is applied gradually for 1 minute to the lead wire by fixing the metal fitting, abnormality shall not be allowed on appearance nor property.
- 4-2. Drop test  
When natural drop is performed three times onto the oak-board thickness 30 mm from height at 1 m, abnormality shall not be allowed on appearance nor property.

### 5. Reliability test

- 5-1. Heat cycle test  
Perform 100 cycles with -10 °C (in liquid) 10 min  $\rightleftharpoons$  room temperature (in air) 5 min  $\rightleftharpoons$  70 °C (in liquid) 10 min as one cycle.
- 5-2. High temperature storage test  
Leave the specimen in atmosphere of 100 °C for 1 000 hours.
- 5-3. High humidity storage test  
Leave the specimen in atmosphere of 65 °C and 90 %RH to 95 %RH for 1 000 hours.
- 5-4. Low temperature storage test  
Leave the specimen in atmosphere of -20 °C for 1 000 hours.

After the test in above items 5-1 to 5-4, the rate of variation for resistance R25 and B-value shall be within  $\pm$  3 % to the initial value, appearance shall not change, and shall satisfy items 3-5, 3-6.