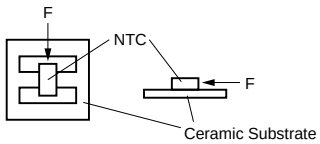
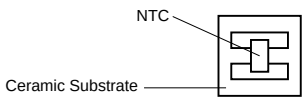
■ NCG18 Series (For Conductive Glue)

<table>
<tr><th>No.</th><th>Item</th><th>Rating value</th><th>Method of Examination</th></tr>
<tr><td>1</td><td>Dry Heat</td><td>· Resistance (R_{25}) change should be less than ±3%
· B-constant ($B_{25\text{-}50}$) change should be less than ±1%
· No visible damage.</td><td>150±3°C in air, for 1000 +48/-0 hours without loading.</td></tr>
<tr><td>2</td><td>Cold</td><td>· Resistance (R_{25}) change should be less than ±1%
· B-constant ($B_{25\text{-}50}$) change should be less than ±1%
· No visible damage.</td><td>-40±3°C in air, for 1000 +48/-0 hours without loading.</td></tr>
<tr><td>3</td><td>Damp Heat</td><td rowspan="4">· Resistance (R_{25}) change should be less than ±3%
· B-constant ($B_{25\text{-}50}$) change should be less than ±1%
· No visible damage.</td><td>60±2°C, 90 to 95%RH in air, for 1000 +48/-0 hours without loading.</td></tr>
<tr><td>4</td><td>High Temperature Load</td><td>150±3°C in air, with Permissive Operating Current (D.C. 0.31mA) for 1000 +48/-0 hours.</td></tr>
<tr><td>5</td><td>High Temperature Humidity Load</td><td>85±2°C, 85%RH in air, with Permissive Operating Current (D.C. 0.31mA) for 1000 +48/-0 hours.</td></tr>
<tr><td>6</td><td>Thermal Shock</td><td>1000 cycles of the following sequence without loading.
<table>
<tr><th>Step</th><th>Temp. (°C)</th><th>Time (minute)</th></tr>
<tr><td>1</td><td>-55+0/-3</td><td>15</td></tr>
<tr><td>2</td><td>+150+3/-0</td><td>15</td></tr>
</table></td></tr>
<tr><td>7</td><td>Robustness of Electrode</td><td>· No peeling of the electrodes.</td><td>Mount NTC Thermistor with conductive glue on Ceramic substrate, and apply 4.90N of force as shown below.:
 
</td></tr>
<tr><td>8</td><td>Vibration Resistant</td><td>· Resistance (R_{25})
change should be less than ±1%
· B-constant ($B_{25\text{-}50}$)
change should be less than ±1%
· No visible damage.</td><td>Solder NTC Thermistor on the Glass Epoxy PCB as shown below.
Frequency: 10Hz to 2000Hz to 10Hz (20min.)
Max. amplitude: 3.0mm
Vibrated for a period of 4hrs. in three (3) directions perpendicularly intersecting each other (for total of 12hrs.).
 
</td></tr>
</table>

· NTC Thermistor should be mounted on the Ceramic substrate with "Standard Land Dimensions" by our recommendable conductive glue (PC3000: Manufactured by Heraeus) and be tested. Thickness of the conductive glue screening should be 50μm.
· R_{25} means the zero-power resistance at 25°C.
· $B_{25\text{-}50}$ is calculated by the zero-power resistances of NTC Thermistor at 25°C and at 50°C.
· After each test, NTC Thermistor should be kept for 1 hour at room temperature (normal humidity and normal atmospheric pressure). Then the resistances (R_{25} and R_{50}) should be measured and the appearance should be visually examined.
· In the case that of R_{25} or $B_{25\text{-}50}$ changes are greater than the specified value due to the method of mounting with conductive glue, these specifications should be judged by an evaluation with the chip only (not mounting).