■ PRF18/21_471Q Series

<table>
<tr><th>No.</th><th>Item</th><th>Rating Value</th><th>Metheod of Examination</th></tr>
<tr><td>1</td><td>Resistance Value at 25°C</td><td>Within the specified range</td><td>After applying maximum operating voltage for 3 mins. and leaving for 2 hours in 25°C, measured by applying voltage less than DC1.5V. (by a direct current less than 10mA)</td></tr>
<tr><td>2</td><td>Adhesive Strength</td><td>There is no sign of exfoliation on electrode.</td><td>Reference standard: IEC 60068-2-21 (2006)
· Soldered PTC to PCB (**)
· Force: 5.0N
· Test time: 10 sec.</td></tr>
<tr><td>3</td><td>Vibration</td><td>· Appearance: No defects or abnormalities
· Resistance (R25) change: Less than ±20% (*)</td><td>Reference standard: IEC 60068-2-6 (2007)
· Soldered PTC to PCB (**)
· Frequency range: 10 to 55Hz
· Amplitude: 1.5mm
· Sweep rate: 1 octave/min.
· Direction: X-Y-Z (3 direction)
· 24 cycles in each axis</td></tr>
<tr><td>4</td><td>Solderability</td><td>Wetting of soldering area: ≧95%</td><td>Reference standard: IEC 60068-2-58 (2004)
· Solder: Sn-3.0Ag-0.5Cu
· Solder temp.: 245±5°C
· Immersion time: 3±0.3s</td></tr>
<tr><td>5</td><td>Resistance to Soldering Heat</td><td>· Appearance: No defects or abnormalities
· Resistance (R25) change: Less than ±20% (*)</td><td>Reference standard: IEC 60068-2-58 (2004)
[Solder bath method]
· Solder: Sn-3.0Ag-0.5Cu
· Preheat: 150±5°C, 90 to 120s
· Solder temp.: 260±5°C
· Immersion time: 10±1s</td></tr>
<tr><td>6</td><td>High Temperature Storage</td><td rowspan="5">· Appearance: No defects or abnormalities
· Resistance (R25) change: Less than ±20% (*)</td><td>Reference standard: IEC 60068-2-2 (2007)
· Soldered PTC to PCB (**)
· +150±2°C
· 1000+48/-0 hrs.</td></tr>
<tr><td>7</td><td>Low Temperature Storage</td><td>Reference standard: IEC 60068-2-1 (2007)
· Soldered PTC to PCB (**)
· -20±3°C
· 1000+48/-0 hrs</td></tr>
<tr><td>8</td><td>Damp Heat, Steady State</td><td>Reference standard: IEC 60068-2-67 (1995)
· Soldered PTC to PCB (**)
· +40±2°C, 90±5%RH
· 500+24/-0 hrs</td></tr>
<tr><td>9</td><td>Thermal Shock</td><td>Reference standard: IEC 60068-2-14 (2009)
[Test Na]
· Soldered PTC to PCB (**)
· Transport time: <10 sec.
· Test condition: See below table
<table>
<tr><th>Step</th><th>Condition</th><th>Time</th></tr>
<tr><td>1</td><td>-20±3°C</td><td>30min.</td></tr>
<tr><td>2</td><td>+150±2°C</td><td>30min.</td></tr>
</table>
· Test cycle: 5 cycles</td></tr>
<tr><td>10</td><td>High Temperature Load</td><td>Reference standard: IEC 60068-2-2 (2007)
· Soldered PTC to PCB (**)
· +85±2°C
· Applied max. voltage
· 1000+48/-0 hrs.</td></tr>
</table>

*: The resistance value after the test. It is measured by applying voltage less than DC1.5V (by a direct current less than 10mA) after left at 25±2°C for 2hrs.
**: Above mentioned soldering is done under the following conditions at our side.
· Glass-Epoxy PC board
· Standard land dimension
· Standard solder paste
· Standard solder profile
Above conditions are mentioned in Notice.