

■ PRF18/21_471Q Series

No.	Item	Rating Value	Metheod of Examination									
1	Resistance Value at 25°C	Within the specified range	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)									
2	Adhesive Strength	There is no sign of exfoliation on electrode.	Reference standard: IEC 60068-2-21 (2006) · Soldered PTC to PCB (**) · Force: 5.0N · Test time: 10 sec.									
3	Vibration	· Appearance: No defects or abnormalities · Resistance (R25) change: Less than ±20% (*)	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									
4	Solderability	Wetting of soldering area: ≥95%	Reference standard: IEC 60068-2-58 (2004) · Solder: Sn-3.0Ag-0.5Cu · Solder temp.: 245±5°C · Immersion time: 3±0.3s									
5	Resistance to Soldering Heat	· Appearance: No defects or abnormalities · Resistance (R25) change: Less than ±20% (*)	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									
6	High Temperature Storage	· Appearance: No defects or abnormalities · Resistance (R25) change: Less than ±20% (*)	Reference standard: IEC 60068-2-2 (2007) · Soldered PTC to PCB (**) · +150±2°C · 1000+48/-0 hrs.									
7	Low Temperature Storage		Reference standard: IEC 60068-2-1 (2007) · Soldered PTC to PCB (**) · -20±3°C · 1000+48/-0 hrs									
8	Damp Heat, Steady State		Reference standard: IEC 60068-2-67 (1995) · Soldered PTC to PCB (**) · +40±2°C, 90±5%RH · 500+24/-0 hrs									
9	Thermal Shock		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	Step	Condition	Time	1	-20±3°C	30min.	2	+150±2°C	30min.
Step	Condition		Time									
1	-20±3°C	30min.										
2	+150±2°C	30min.										
10	High Temperature Load	Reference standard: IEC 60068-2-2 (2007) · Soldered PTC to PCB (**) · +85±2°C · Applied max. voltage · 1000+48/-0 hrs.										

*: 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 $25 \pm 2^\circ\text{C}$ 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.