### PRF18/21_471Q Series

<table>
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<tr>
<th>No.</th>
<th>Item</th>
<th>Rating Value</th>
<th>Method of Examination</th>
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<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>
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</tbody>
</table>
| 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  
  - 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 |
  - 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  
  - 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 |
  - Soldered PTC to PCB (**)  
  - +150±2°C  
  - 1000±48/-0 hrs. |
  - Soldered PTC to PCB (**)  
  - -20±3°C  
  - 1000±48/-0 hrs |
  - Soldered PTC to PCB (**)  
  - +40±2°C, 90±5%RH  
  - 500±24/-0 hrs |
| 9   | Thermal Shock | Appearance: No defects or abnormalities  
  - Test Na  
  - Soldered PTC to PCB (**)  
  - Transport time: <10 sec.  
  - Test condition: See below table |
  - 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±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.