

■ PRF15_103R Series

No.	Item	Rating Value	Method 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 DC3.0V.									
2	Vibration	<ul style="list-style-type: none"> Appearance: No defects or abnormalities Resistance (R25) change: Less than $\pm 20\%$ (*) 	Reference standard: IEC 60068-2-6 (2007) <ul style="list-style-type: none"> 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 									
3	Solderability	Wetting of soldering area: $\geq 95\%$	Reference standard: IEC 60068-2-58 (2004) <ul style="list-style-type: none"> Solder: Sn-3.0Ag-0.5Cu Solder temp.: $245 \pm 5^\circ\text{C}$ Immersion time: $3 \pm 0.3\text{s}$ 									
4	Resistance to Soldering Heat	<ul style="list-style-type: none"> Appearance: No defects or abnormalities Resistance (R25) change: Less than $\pm 20\%$ (*) 	Reference standard: IEC 60068-2-58 (2004) <ul style="list-style-type: none"> [Solder bath method] Solder: Sn-3.0Ag-0.5Cu Preheat: $150 \pm 5^\circ\text{C}$, 90 to 120s Solder temp.: $260 \pm 5^\circ\text{C}$ Immersion time: $10 \pm 1\text{s}$ 									
5	High Temperature Storage	<ul style="list-style-type: none"> Appearance: No defects or abnormalities Resistance (R25) change: Less than $\pm 20\%$ (*) 	Reference standard: IEC 60068-2-2 (2007) <ul style="list-style-type: none"> Soldered PTC to PCB (**) (Max. operating temp.) $\pm 2^\circ\text{C}$ $1000 + 48 / - 0$ hrs. 									
6	Low Temperature Storage		Reference standard: IEC 60068-2-1 (2007) <ul style="list-style-type: none"> Soldered PTC to PCB (**) (Min. operating temp.) $\pm 3^\circ\text{C}$ $1000 + 48 / - 0$ hrs 									
7	Damp Heat, Steady State		Reference standard: IEC 60068-2-67 (1995) <ul style="list-style-type: none"> Soldered PTC to PCB (**) $+60 \pm 2^\circ\text{C}$, $90 \pm 5\% \text{RH}$ $1000 + 48 / - 0$ hrs 									
8	Thermal Shock		Reference standard: IEC 60068-2-14 (2009) <ul style="list-style-type: none"> [Test Na] Soldered PTC to PCB (**) Transport time: < 10 sec. Test condition: See below table <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Step</th> <th>Condition</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>(Min. Operating temp.) $\pm 3^\circ\text{C}$</td> <td>30min.</td> </tr> <tr> <td>2</td> <td>(Max. Operating temp.) $\pm 2^\circ\text{C}$</td> <td>30min.</td> </tr> </tbody> </table> <ul style="list-style-type: none"> Test cycle: 5 cycles 	Step	Condition	Time	1	(Min. Operating temp.) $\pm 3^\circ\text{C}$	30min.	2	(Max. Operating temp.) $\pm 2^\circ\text{C}$	30min.
Step	Condition		Time									
1	(Min. Operating temp.) $\pm 3^\circ\text{C}$	30min.										
2	(Max. Operating temp.) $\pm 2^\circ\text{C}$	30min.										
9	High Temperature Load	Reference standard: IEC 60068-2-2 (2007) <ul style="list-style-type: none"> Soldered PTC to PCB (**) (Max. operating temp.) $\pm 2^\circ\text{C}$ Applied max. voltage $1000 + 48 / - 0$ hrs. 										

*: The resistance value after the test. It is measured by applying voltage less than DC3.0V 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.