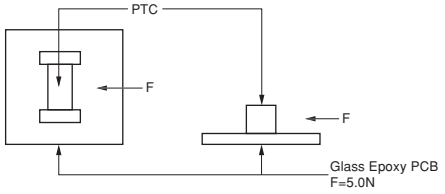
■ PRG18/21BB Series

No.	Item	Rating Value	Method of Examination
1	Operating Temp.	-10 to 60°C	Temperature range with maximum voltage applied to PTC.
2	Resistance Value (at 25°C)	The resistance value should be within the specified tolerance.	After applying maximum operating voltage for 3 mins. and leaving for 2 hrs. in 25°C, measured by applying voltage of less than 1.5Vdc (by a direct current of less than 10mA).
3	Withstanding Voltage	Without damage	We apply 120% of the maximum operating voltage to PTC by raising gradually for 180±5 secs. at 25°C. (A protective resistor is to be connected in series, and the inrush current through PTC must be limited below maximum rated value.)
4	Adhesive Strength	There is no sign of exfoliation on electrode.	EIAJ ET-7403 term 9 Soldered PTC to PCB and add a force of 5.0N in the direction as shown below. 
5	Vibration	Normal appearance Resistance change: not to exceed ±20% (*)	JIS C 5102 term 8.2 Soldered PTC to PCB Vibration: A 10-55-10Hz (1 min.) Width: 1.5mm Vibrate for 2 hrs. in each of 3 mutually perpendicular planes for a total of 6 hrs.
6	Solderability	Min. 75% electrode is covered with new solder. Resistance change: not to exceed ±20% (*)	JIS C 5102 term 8.4 Solder: Sn 63%/Pb 37% (or 60/40%) Solder temp: 230±5°C Soaking time: 3±0.5 secs. Soaking position: Until a whole electrode is soaked
7	Soldering Heat Resistance	Normal appearance Resistance change: not to exceed ±20% (*)	Solder: Sn 63%/Pb 37% (or 60/40%) Flux: Solder paste containing less than 0.2wt% of chlorine. Preheating: 150±5°C 3 mins. Peak temp.: 260±5°C 10±5 secs. (reflow) PCB: Glass Epoxy PCB (JIS C 6484)
8	Temperature Cycling	Normal appearance Resistance change: not to exceed ±20% (*)	JIS C 5102 term 9.3 Times: 5 cycles Step / Temp. (°C) / Time (min.) 1 / -20 +0, -3 / 30 2 / Room temp. / 10-15 3 / +85 +3, -0 / 30 4 / Room temp. / 10-15
9	Damp Heat	Normal appearance Resistance change: not to exceed ±20% (*)	JIS C 5102 term 9.5 40±2°C, 90-95%RH leave for 500±4 hrs.
10	High Temperature Load	Normal appearance Resistance change: not to exceed ±20% (*)	JIS C 5102 term 9.10 60±3°C (in air), PTC is applied maximum operating voltage for 1.5 hrs. on and 0.5 hrs. off. This cycle is repeated for 1000±10 hrs.

(*) Measure resistance after the test by applying voltage of less than 1.5Vdc by a direct current of less than 10mA after product is left at 25±2°C for 2 hours.

Above mentioned soldering in "4. Adhesive Strength" and "5. Vibration" is done under the following conditions at our site.

- •Glass-Epoxy PC board
- •Standard land dimension
- •Standard solder paste
- •Standard solder profile

Above conditions are mentioned in Notice.