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 leaving for 24 hrs. or more in 25°C, it measures by 4 wire measuring methods using the direct-current terminal current of 10mA or less (0.1 or less Vdcs).
3	Withstanding Voltage	Without damage	We apply 120% of the maxi. operating voltage to PTC by rising 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 max. rated value.)
4	Adhesive Strength	There is no exfoliation sign of electrode.	EIAJ ET-7403 term 9 Soldered PTC to PCB and add the force of 5.0N in the direction as shown below. PTC Glass Epoxy PCB F=5.0N
5	Vibrationability	Normal appearance Resistance change: not 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 plane for a total of 6 hrs.
6	Solderability	Min. 75% electrode is covered with new solder. Resistance change: not 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	Solder-heatability	Normal appearance Resistance change: not exceed ±20% (*)	Solder: Sn 63%/Pb 37% (or 60/40%) Flax: Solder paste containing less than 0.2wt% of chlorine. Preheating: 150±5°C 3mins. Peak temp.: 260±5°C 10±5 secs. (reflow) PCB: Glass Epoxy PCB (JIS C 6484)
8	High Temperature Test		60±3°C leaves for 1000±10 hrs.
9	Low Temperature Test		-10±3°C leaves for 1000±10 hrs.
10	Humidity Test		60±2°C, 90-95%RH leaves for 500±4 hrs.
11	Temperature Cycling	Normal appearance Resistance change: not 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
12	High Temperature Load Test		60±3°C (in air), PTC is applied max. operating voltage for 1.5 hrs. on and 0.5 hrs. off. This cycle is repeated for 500±4 hrs.

^(*) The resistance measurement after the test.

After leaving for 24 hours. or more in 25±2°C, it measures by 4 wire measuring methods using the direct-current terminal current of 10mA or less (0.1 or less Vdcs).

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

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

Above conditions are mentioned in Notice.

