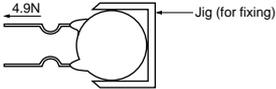


■30-140V Series

No.	Item	Rating Value	Method of Examination
1	Operating Temperature 1	-30 to +125°C	The temperature range with maximum voltage applied to the POSISTOR®.
2	Operating Temperature 2	-40 to +125°C	The temperature range with the following voltage applied to the POSISTOR®. <applied voltage> 30V and 51V series: max. 16V, 60V series: max. 30V, 140V series: max. 140V
3	Resistance (R25)	Satisfies ratings	Resistance value is measured by applying voltage under 1.0Vdc (by a direct current of less than 10mA) at 25°C. (But it must be measured after it is applied maximum voltage for 180 seconds and then is left for 2 hours at 25°C.)
4	Withstanding Voltage	No damage	We apply AC voltage 120% that of the maximum voltage to POSISTOR® by raising voltage gradually for 180±5 seconds at 25°C. (A protective resistor is to be connected in series, and the inrush current through POSISTOR® must be limited below max. rated value.)
5	Protective Threshold Current	Satisfies ratings (Trip Current, Non-operating Current)	Maximum current is measured in this examination. Voltage is applied to POSISTOR® in 3-minute steps still air based on "Protective Threshold Current Test Conditions" shown in next page. Stable current is measured at each step.
6	Tensile Strength of Lead Wire Terminal	No damage	The load is gradually applied to each terminal of POSISTOR® until the force of 4.9N in the axial direction with fixing POSISTOR®'s body itself by a jig and this load is being kept for 10 seconds. 
7	Bending Strength of Lead Wire Terminal	Lead wire does not come off	POSISTOR® is held so that it is perpendicular to the lead wire with 2.45N in the axial direction of the lead wire. The lead wire is slowly bent to 90° and returned; then it is slowly bent in the opposite direction and returned to original state.
8	Solderability	Solder is applied around the lead wire covering 3/4 or more of the circumference without a gap in the axial direction.	The lead wire of POSISTOR® is soaked in an Isopropyl Alcohol (JIS K 8839) solution (about 25wt%) of colophony (JIS K 5902) for 5-10 sec. Then, each lead wire is soaked in molten solder (JIS Z 3282 H60A) at 235±5°C from the bottom to a point of 2.0-2.5mm for 2±0.5 seconds.
9	Terminal Durability of Soldering	$\Delta R/R25 \leq \pm 15\%$	The lead wire of POSISTOR® is soaked in molten solder (JIS Z 3282 H60A) at 350±10°C from the bottom to a point of 2.0-2.5mm for 3.5±0.5 sec. After the device is left at room temperature (25°C) for 24±4 hours, the resistance is measured.
10	Vibration Resistant	$\Delta R/R25 \leq \pm 20\%$	Acceleration: 98m/s ² (10G) Width: 1.5mm Vibration: 10-500-10Hz Vibrate for 11 minutes × 24 cycles in each of 3 mutually perpendicular planes for a total of 13.5 hours.
11	Heat Resistant	$\Delta R/R25 \leq \pm 20\%$	POSISTOR® is set in an environmental chamber at 125±3°C for 1000±12 hours. After the device is left at room temperature (25°C) for one hour, the resistance measurement is performed.
12	Cold Resistant	$\Delta R/R25 \leq \pm 20\%$	POSISTOR® is set in an environmental chamber at -40±3°C for 1000±12 hours. After the device is left at room temperature (25°C) for one hour, the resistance measurement is performed.
13	Resistance to Damp Heat	$\Delta R/R25 \leq \pm 20\%$	POSISTOR® is set in an environmental chamber at 85±3°C and 80-85% humidity for 1000±12 hours. After the device is left at room temperature (25°C) for one hour, the resistance measurement is performed.

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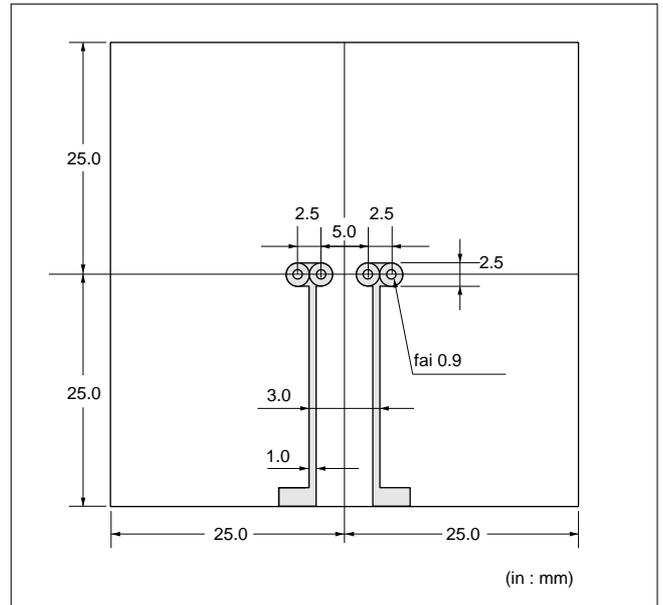
Protective Threshold current test conditions

(1) Substrate

Materials: Phenol

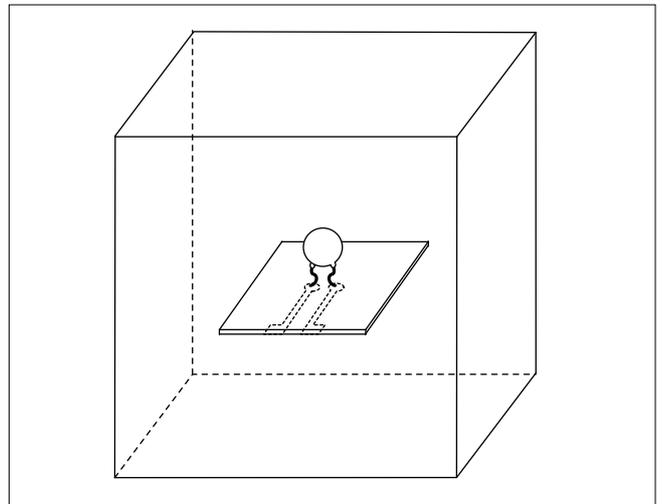
Size: 50x50x1.6mm

Land Pattern: Cu land without through hole



(2) Measurement condition

Solder POSISTOR[®] on the substrate, then put a cover (150mm cubed) surround POSISTOR[®] to prevent flow of wind.



(3) Measurement circuit

