

Item	Rating Value	Method of Examination						
Continuous Operating Temperature	-10 to +60 °C	The temperature range with maximum voltage applied to the POSISTOR®.						
Resistance Value (at 25°C)	Satisfies ratings	Resistance value is measured by applying voltage under 1.5Vdc (by a direct current of less than 10mA) at 25°C. But it must be measured after maximum voltage is applied for 180 seconds and then is left for 2 hours at 25°C. As for 16V series, measurement probes should be connected on the lead wire at the point within 2mm from the below side of the forming. Resistance should be measured by 4 wiring method.						
Withstanding Voltage	No problem	We apply AC voltage 120% (16V Series: 110%) 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.)						
Tensile Strength of Lead Wire Terminal	No damage	The load is gradually applied to each terminal of POSISTOR® until the force of the following table in the axial direction with fixing POSISTOR®'s body itself and this load is being kept for 10 seconds. <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Lead Diameter</th> <th>Force</th> </tr> </thead> <tbody> <tr> <td>ø0.60mm max.</td> <td>4.90N</td> </tr> <tr> <td>ø0.65mm min.</td> <td>9.80N</td> </tr> </tbody> </table>	Lead Diameter	Force	ø0.60mm max.	4.90N	ø0.65mm min.	9.80N
Lead Diameter	Force							
ø0.60mm max.	4.90N							
ø0.65mm min.	9.80N							
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 the following lead hanging 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. <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Lead Diameter</th> <th>Force</th> </tr> </thead> <tbody> <tr> <td>ø0.60mm max.</td> <td>2.45N</td> </tr> <tr> <td>ø0.65mm min.</td> <td>4.90N</td> </tr> </tbody> </table>	Lead Diameter	Force	ø0.60mm max.	2.45N	ø0.65mm min.	4.90N
Lead Diameter	Force							
ø0.60mm max.	2.45N							
ø0.65mm min.	4.90N							
Solderability	Solder is applied around the lead wire covering 3/4 or more of the circumference without gap in the axial direction.	The Lead wire of POSISTOR® is soaked in an Isopropyl alcohol (JIS K 8839) or ethanol (JIS K 8101) solution (about 25wt%) of colophony (JIS K 5902) for 5 to 10 sec. And, 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 to 2.5mm for 2±0.5 sec.						
Terminal Durability of Soldering	$\Delta R/R_{25} \leq \pm 15\%$	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 to 2.5mm for 3.5±0.5 sec. After the device is being left at room temperature (25°C) for 24±4 hours, the resistance is measured.						
Humidity Test	$\Delta R/R_{25} \leq \pm 20\%$	POSISTOR® is set in an environmental chamber at 40±2°C and 90 to 95% humidity for 500±4 hours. After the device is left at room temperature (25°C) for one hour, the resistance measurement is performed.						
Load Cycle Test at High Temperature	$\Delta R/R_{25} \leq \pm 20\%$	POSISTOR® is set in an environmental chamber at 60±3°C with maximum voltage applied for 1.5 hours and then is left without voltage applied for 0.5 hours. This cycle is repeated for 1000±10 hours, and after the device is left at room temperature (25°C) for one hour, the resistance measurement is performed. (A protective resistor is to be connected in series and the inrush current through POSISTOR® must be limited below max. rated value.)						