



ZINC OXIDE VARISTOR

ENVIRONMENTAL RATINGS

Item	Test Condition/Description	Requirement								
High Temperature storage	The specimen shall be subjected to 125°C(257° F)for 1000 hours in a thermostatic bath without load and then stored at room temperature and humidity for one to two hours. Thereafter, the change of Vb shall be measured	$\frac{\Delta V_b}{V_b} \leq \pm 10\%$								
Humidity	The specimen shall be subjected to 40°C(104° F).90 to 95% R,H,for 1000 hours without load and then stored at room temperature and humidity for one to two hours. Thereafter, the change of Vb shall be measured.									
Thermal shock	The temperature cycle shown below shall be repeated five times and then stored at room temperature and humidity for one to two hours. The change of Vb as well as mechanical damage shall be examined <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Step</th> <th>Temperature</th> <th>Period</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-25°C(-13° F)</td> <td>30 Minutes</td> </tr> <tr> <td>2</td> <td>85°C(-185° F)</td> <td>30 Minutes</td> </tr> </tbody> </table>		Step	Temperature	Period	1	-25°C(-13° F)	30 Minutes	2	85°C(-185° F)
Step	Temperature	Period								
1	-25°C(-13° F)	30 Minutes								
2	85°C(-185° F)	30 Minutes								
High Temperature Operation	After being continuously applied the maximum all owable voltage at 85°C(185° F) for 1000 hours, the specimen shall be stored at room temperature and humidity for one to two hours. Thereafter, the change of Vb shall be measured.	$\frac{\Delta V_b}{V_b} \leq \pm 10\%$								

MECHANICAL RATINGS

Item	Test Condition/Description	Requirement								
Terminal pull strength	After gradually applying the load specified below and keeping the unit fixed for ten seconds, the terminal shall be visually examined for any damage. <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Terminal diameter</th> <th>Load</th> </tr> </thead> <tbody> <tr> <td>0.6mm(.024")</td> <td>0.5kg(1.1lbs)</td> </tr> <tr> <td>0.8mm(.031")</td> <td>1.0kg(2.2lbs)</td> </tr> <tr> <td>1.0mm(.039")</td> <td>2.0kg(4.4lbs)</td> </tr> </tbody> </table>	Terminal diameter	Load	0.6mm(.024")	0.5kg(1.1lbs)	0.8mm(.031")	1.0kg(2.2lbs)	1.0mm(.039")	2.0kg(4.4lbs)	No outstanding damage
Terminal diameter	Load									
0.6mm(.024")	0.5kg(1.1lbs)									
0.8mm(.031")	1.0kg(2.2lbs)									
1.0mm(.039")	2.0kg(4.4lbs)									
Terminal Bending strength	The unit shall be secured with its terminal kept vertical and the weight specified below be applied in the axial direction. The terminal shall gradually be bent by 90° in one direction, then 90° in the opposite direction, and again back to the original position. The damage of the terminal shall be visually examined. <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Terminal diameter</th> <th>Load</th> </tr> </thead> <tbody> <tr> <td>0.6mm(.024")</td> <td>0.25kg(1.1lbs)</td> </tr> <tr> <td>0.8mm(.031")</td> <td>0.5kg(2.2lbs)</td> </tr> <tr> <td>1.0mm(.039")</td> <td>1.0kg(4.4lbs)</td> </tr> </tbody> </table>	Terminal diameter	Load	0.6mm(.024")	0.25kg(1.1lbs)	0.8mm(.031")	0.5kg(2.2lbs)	1.0mm(.039")	1.0kg(4.4lbs)	
Terminal diameter	Load									
0.6mm(.024")	0.25kg(1.1lbs)									
0.8mm(.031")	0.5kg(2.2lbs)									
1.0mm(.039")	1.0kg(4.4lbs)									
Solderability	After dipping the terminal to a depth of approximately 3mm(.118")from the body in a soldering bath of 260°C (500° F)for three seconds, the terminal shall be visually examined.	Almost all the surface should be covered with solder uniformly								
Resistance to Soldering Heat	The terminal shall be dipped into a soldering bath having a temperature of 350°C(660° F)to a point 3 mm(.118")from the body of the unit and then be held there for three seconds. The change of Vb and mechani-cal damage shall be examined.	$\frac{\Delta v_b}{v_b} \leq \pm 5\%$ No outstanding damage								

269