



METAL OXIDE VARISTOR

Performance Characteristics – Environmental

Characteristics	Test Method	Specifications															
High Temperature Storage/ Dry Heat	The specimen shall be subjected to $125 \pm 2^{\circ}\text{C}$ for 1000 hours in a thermostatic bath without load and then stored at room temperature and humidity for 1 to 2 hours. Thereafter, the change of V_c shall be measured.																
Damp Heat/Humidity (Steady State)	The specimen shall be subjected to $40 \pm 2^{\circ}\text{C}$, 90 to 95% RH for 1000 hours without load and then stored at room temperature and humidity for one to two hours. Thereafter, the change of V_c shall be measured.																
Temperature Cycle	<p>The temperature cycle shown below shall be repeated five times and then stored at room temperature and humidity for 1 to 2 hours. The change of V_c and mechanical damage shall be examined.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Step</th> <th style="text-align: center;">Temperature($^{\circ}\text{C}$)</th> <th style="text-align: center;">Period (minutes)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">-40 ± 3</td> <td style="text-align: center;">30 ± 3</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">Room temperature</td> <td style="text-align: center;">15 ± 3</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">125 ± 2</td> <td style="text-align: center;">30 ± 3</td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">Room temperature</td> <td style="text-align: center;">15 ± 3</td> </tr> </tbody> </table>	Step	Temperature($^{\circ}\text{C}$)	Period (minutes)	1	-40 ± 3	30 ± 3	2	Room temperature	15 ± 3	3	125 ± 2	30 ± 3	4	Room temperature	15 ± 3	$\Delta V_{cmA}/V_{cmA} \leq \pm 5\%$
Step	Temperature($^{\circ}\text{C}$)	Period (minutes)															
1	-40 ± 3	30 ± 3															
2	Room temperature	15 ± 3															
3	125 ± 2	30 ± 3															
4	Room temperature	15 ± 3															
High Temperature Load/ Dry Heat Load	After being continuously applied the Maximum Allowable Voltage at $85 \pm 2^{\circ}\text{C}$ for 1000 hours, the specimen shall be stored at room temperature and humidity for 1 to 2 hours. Thereafter, the change of V_c shall be measured.	$\Delta V_{cmA}/V_{cmA} \leq \pm 10\%$															
Damp Heat Load/Humidity Load	The specimen shall be subjected to $40 \pm 2^{\circ}\text{C}$, 90 to 95% RH and the Maximum Allowable Voltage for 1000 hours and then stored at room temperature and humidity for 1 to 2 hours. Thereafter, the change of V_c shall be measured.	$\Delta V_{cmA}/V_{cmA} \leq \pm 10\%$															
Low Temperature Storage/Cold	The specimen shall be subjected to $-40 \pm 2^{\circ}\text{C}$ without load for 1000 hours and then stored at room temperature for 1 to 2 hours. Thereafter, the change of V_c shall be measured.	$\Delta V_{cmA}/V_{cmA} \leq \pm 5\%$															