Nov.12.2002

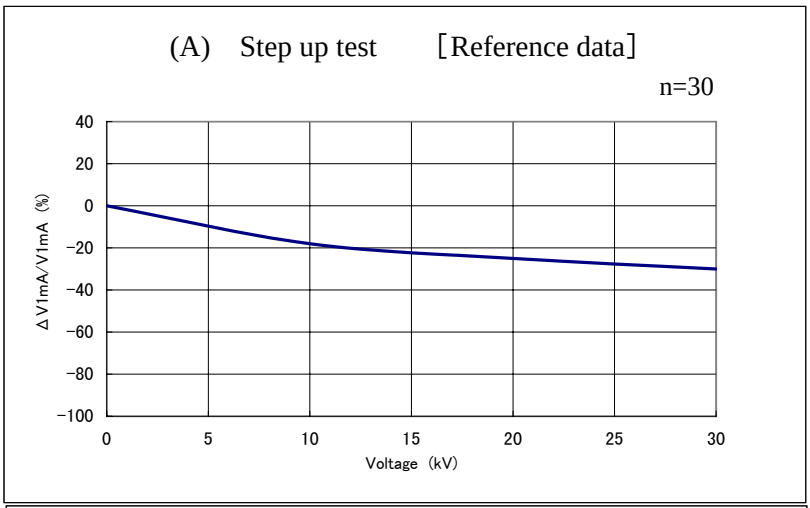
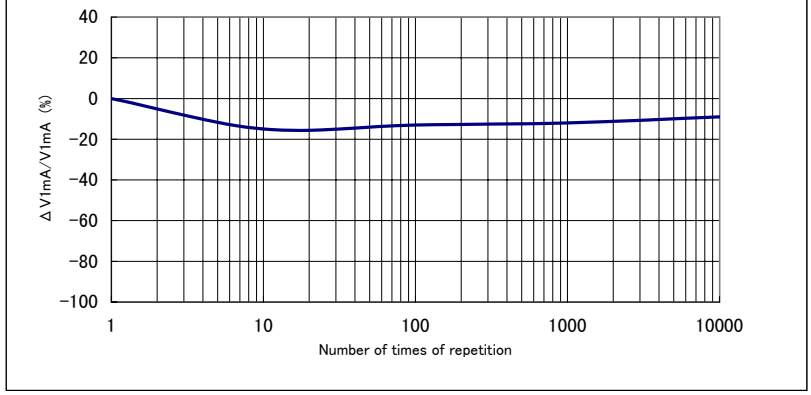
Reliability Test Data

Product name : Multilayer Varistor , Array type
Part No. : EZJZSV171AA

- Maximum ESD
- Temperature cycle
- Damp heat load
- Dry heat load

[Attention]
This reliability test data show the general characteristic which is due to the examination result of typical sample and because the value of the data doesn't agree with all products, be careful. Confirm a delivery specification about the guarantee item and the fixed case of each product number.

Matsushita Electronic Components Co.,Ltd.
LCR Device Company
Ceramic Business Unit

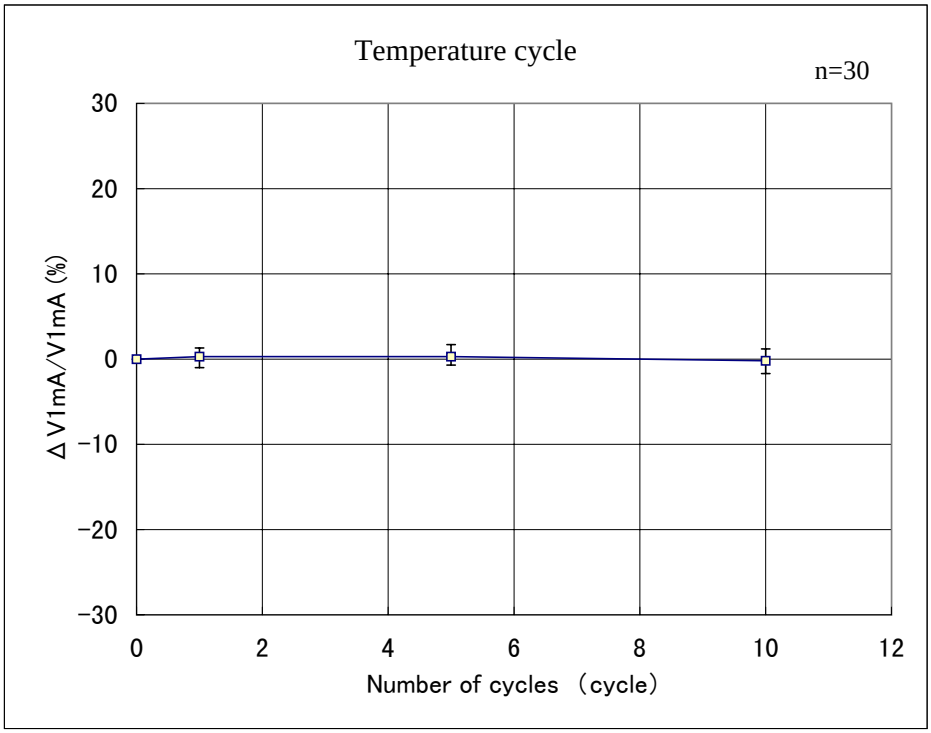
Test item	**Maximum ESD**
Product name	**Multilayer Varistor , Chip type**
Part No.	**EZJZSV171AA**
Test method / Requirements	［Test method ］ The maximum voltage within the varistor voltage change of ±30% when a standard impulse* voltage of **ESD is applied ten times with an interval of 1 to 2 seconds. *Compliance standard : IEC61000-4-2 C:150pF R:330Ω ** ESD : Electrostatic discharge (A)Step up test (B)Repetition test
	［Requirements］ 8kV No remarkable mechanical damage The rate of change of varistor voltage ΔV1mA/V1mA ≦ 30 %
Test data	(A) Step up test ［Reference data］ n=30  (B) Repetition test [Reference data] n=30 

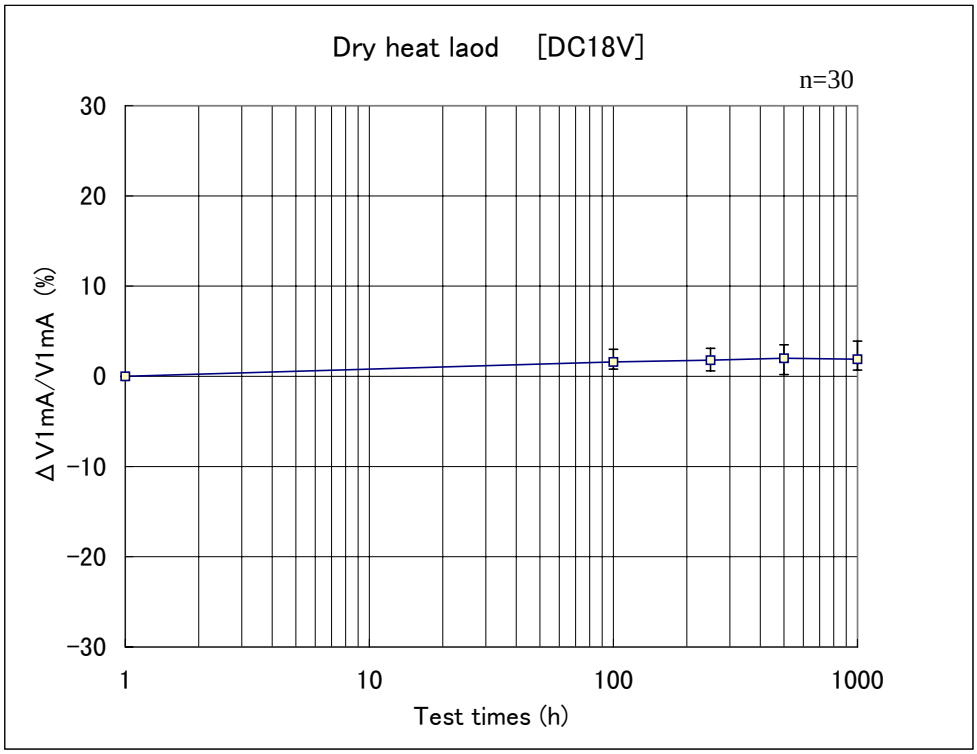
Test item	**Temperature cycle**
Product name	**Multilayer Varistor , Chip type**
Part No.	**EZJZSV171AA**
Test method / Requirements	[Test method] Condition the specimen to each temperature from step 1 to 4 in this order for the period shown in the table of specifications. Before the measurement after test, the specimen shall be left to stand at mechanical damage shall be examined.

Step	Temperature	Period
1	-40 ± 3 ℃	30 ± 3 min.
2	Room temp.	5 or less minutes
3	85 ± 5 ℃	30 ± 3 min.
4	Room temp.	5 or less minutes

[Requirements]
5 cycle
No remarkable mechanical damage
The rate of change of varistor voltage ΔV1mA/V1mA ≦ 10 %

Test data



Test item	**Dry heat load**
Product name	**Multilayer Varistor , Chip type**
Part No.	**EZJZ0V171AA**
Test method / Requirements	[Test method] The specimen shall be applied continuously the Maximum allowable voltage at specified conditions for specified period and then stored at room temperature and normal humidity for 24±2 hours.Thereafter,the change of Vc and mechanical damage s - Ambient 85±2 ℃ - Period 500 + 24 h ,-0h - Load Maximum allowable voltage [Requirements] The rate of change of varistor voltage ΔV1mA/V1mA ≦ 10 %
Test data	

Test item	**Damp heat load**
Product name	**Multilayer Varistor , Chip type**
Part No.	**EZJZ0V171AA**
Test method / Requirements	[Test method] The specimen shall be applied continuously the Maximum allowable voltage at specified conditions for specified period and then stored at room temperature and normal humidity for 24±2 hours.Thereafter,the change of Vc and mechanical damage shall be examined. - Ambient 40±2 ℃ , 90 to 95%RH - Period 500 + 24 h ,-0h - Load Maximum allowable voltage
	[Requirements] The rate of change of varistor voltage ΔV1mA/V1mA ≦ 10 %
Test data