Reliability Test Data

Product name : Multilayer Varistor , Array type
Part No. : EZJZSV120JA
　　　　　　　　 EZJZSV270EA

- V-I characteristics
- Maximum peak current
- Temperature cycle
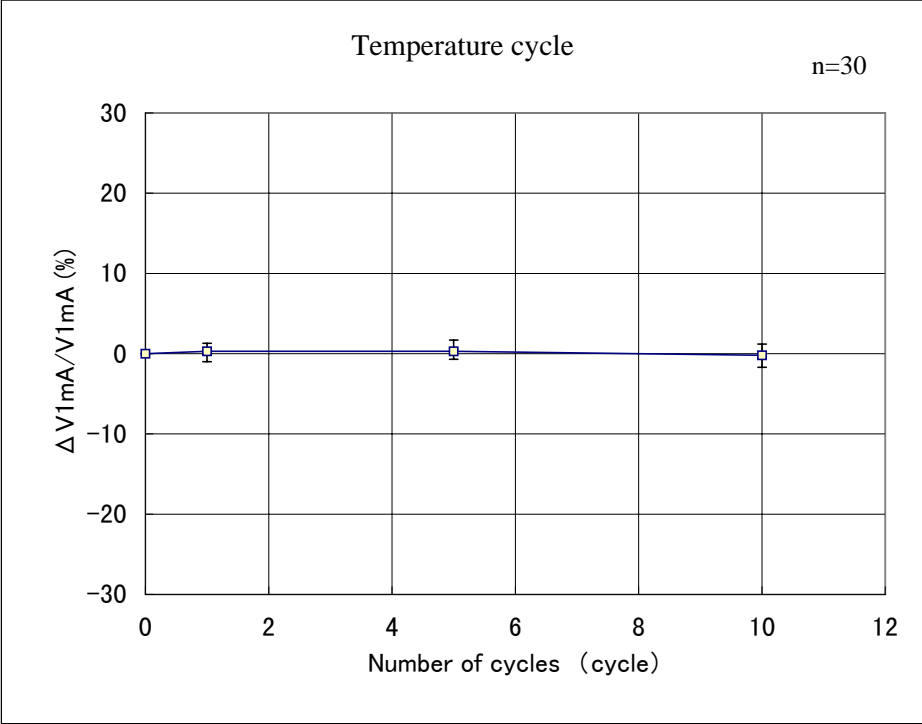- Dry heat load
- Damp heat load

[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	**V-I characteristics**
Product name	**Multilayer Varistor , Chip type**
Part No.	**EZJZSV120JA , EZJZSV270EA**
Test method / Requirements	［Measurement method］ 　1mA or less is measured by DC. 　1mA or more is measured by standard impulse 8/20us ［Requirements］ 　Clamping voltage 　　- EZJZSV120JA　＜30V　@ 1A 　　- EZJZSV270EA　＜50V　@ 1A
Test data	

V-I characteristics   n=30

EZJZSV270EA

EZJZSV120JA

ΔV1mA/V1mA （%）

Surge current （A）

Test item	**Maximum peak current**
Product name	**Multilayer Varistor , Chip type**
Part No.	**EZJZSV120JA , EZJZSV270EA**
Test method / Requirements	［Test method］ The maximum peak current within the varistor voltage change of ±10% when a standard impulse current* is applied two times with an interval of 5 minutes. *Standard impulse: 8/20us
	［Requirements］ 5A
Test data	Surge step up test to every 10A.[Reference]

Test item	**Temperature cycle**
Product name	**Multilayer Varistor , Chip type**
Part No.	**EZJZSV120JA , EZJZSV270EA**

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 $\Delta V1mA/V1mA \leqq 10$ %

Test data

Temperature cycle   n=30

Test item	**Dry heat load**
Product name	**Multilayer Varistor , Chip type**
Part No.	**EZJZSV120JA , EZJZSV270EA**

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	

Dry heat laod　　[DC18V]

Test item	**Damp heat load**
Product name	**Multilayer Varistor , Chip type**
Part No.	**EZJZSV120JA , EZJZSV270EA**
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 $\leqq$ 10 %
Test data	Damp heat load [DC18V] n=30 (Graph: x-axis "Test times (h)" from 1 to 1000 logarithmic; y-axis "ΔV1mA／V1mA (%)" from −30 to 30)