



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

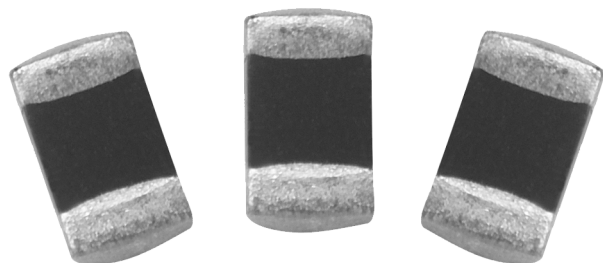
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## Surface Mount Multilayer Varistors



### FEATURES

- Surface mount multilayer surge suppressor
- Inherent bidirectional clamping
- Low capacitance types available
- Excellent energy/volume ratio
- Suitable for wave or reflow soldering
- Compliance to IEC 1000-4-2

Size 0805 (2012M) multilayer chip varistor with AgPd terminations.

### APPLICATIONS

- Data lines and I/O port protection
- Protection against EMI and ESD transients
- On-board protection of ICs and transistors
- Modem protection
- LCD protection

### PACKAGING

Available in 8 mm paper tape on reel packaging and in bulk on request.

| QUICK REFERENCE DATA                               |            |      |
|--|------------|------|
| PARAMETER  | VALUE      | UNIT |
| Maximum continuous voltage:                        |            |      |
| DC   | 3.3 to 31  | V    |
| AC   | 2.5 to 25  | V    |
| Maximum clamping voltage at 1 A                    | 12 to 65   | V    |
| Capacitance range                                  | 60 to 1300 | pF   |
| Maximum non-repetitive surge energy (10 × 1000 μs) | 0.1        | J    |
| Maximum peak current (8 × 20 μs)                   | 30         | A    |
| Response time (typical)                            | 0.5        | ns   |
| Operating temperature range                        | -55 to 125 | °C   |
| Storage temperature range                          | -25 to 45  | °C   |
| Maximum continuous dissipation                     | 5          | mW   |

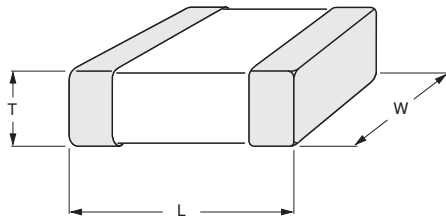
| ELECTRICAL DATA AND ORDERING INFORMATION |        |                                |          |                                     |                    |          |                               |
|--|--------|--------------------------------|----------|-------------------------------------|--------------------|----------|-------------------------------|
| MAXIMUM OPERATING VOLTAGE                |        | VOLTAGE <sup>(2)</sup> at 1 mA |          | MAXIMUM CLAMPING VOLTAGE at 1 A (V) | CAP. at 1 kHz (pF) | TOL. (%) | CATALOG NUMBERS 2322 574..... |
| RMS <sup>(1)</sup> (V)                   | DC (V) | MIN. (V)                       | MAX. (V) |                                     |                    |          |                               |
| 2.5                                      | 3.3    | 4.1                            | 6.0      | 12                                  | 1300               | typ.     | 12583                         |
| 4.0                                      | 5.5    | 6.4                            | 9.6      | 21                                  | 470                | typ.     | 10403                         |
| 6.0                                      | 8.0    | 8.8                            | 13.2     | 27                                  | 300                | typ.     | 10603                         |
| 8.0                                      | 11.0   | 12.7                           | 17.2     | 33                                  | 200                | typ.     | 10803                         |
| 10.0                                     | 14.0   | 15.3                           | 21.0     | 35                                  | 110                | typ.     | 11003                         |
| 14.0                                     | 18.0   | 19.8                           | 25.7     | 40                                  | 100                | typ.     | 11403                         |
| 17.0                                     | 22.0   | 24.3                           | 29.7     | 46                                  | 90                 | typ.     | 11703                         |
| 20.0                                     | 26.0   | 29.7                           | 38.6     | 56                                  | 70                 | typ.     | 12003                         |
| 25.0                                     | 31.0   | 35.1                           | 45.6     | 65                                  | 60                 | typ.     | 12503                         |

### Notes

1. The sinusoidal voltage is assumed as the normal operating condition. If a non-sinusoidal voltage is present, type selection should be based on multiplying the peak voltage by a factor of 0.707.
2. The voltage measured at 1 mA meets the requirements of "paragraph 4.3 of CECC specification 42000".

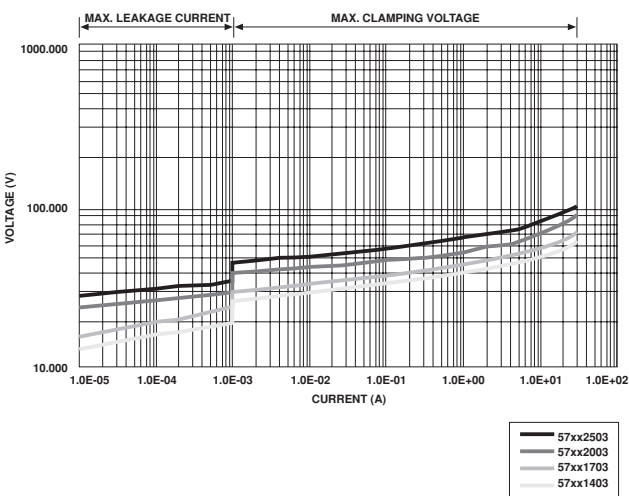
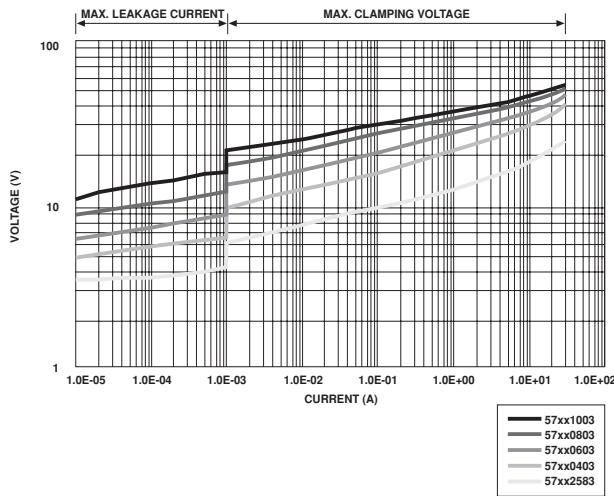


**DIMENSIONS** in millimeters



| L        | W          | T          |
|----------|------------|------------|
| 2.0 ±0.2 | 1.25 ±0.15 | 0.8 ± 0.15 |

**V/I CHARACTERISTIC**



| TESTS AND REQUIREMENTS  |          |                                    |  |
|---|----------|------------------------------------|--|
| TEST / CONDITIONS OF TEST   | D OR ND* | PROCEDURE                          | PERFORMANCE  |
| <b>Sub-group A1</b>   | ND       |                                    |  |
| Visual examination "IEC 4.3.1"                                    |          |                                    | no visible damage                                  |
| <b>Sub-group A2</b>   | ND       |                                    |  |
| Voltage (CECC 4.3); Clamping voltage (CECC B.2.7)                 |          | at 1 mA                            | as specified                                       |
| <b>Sub-group A3</b>   | ND       |                                    |  |
| Dimensions (gauging) "IEC 4.3.3"                                  |          |                                    | see 4.3.3  |
| <b>Sub-group B1</b>   | D        |                                    |  |
| Solderability:<br>Test Td of "IEC 60068-2-20", solder bath method |          | 235 °C ±5 °C for 5 ±0.5 s; at 1 mA | no visible damage;<br>as in 9.2.1;<br>as specified |

\* D = Destructive, N = Non-destructive