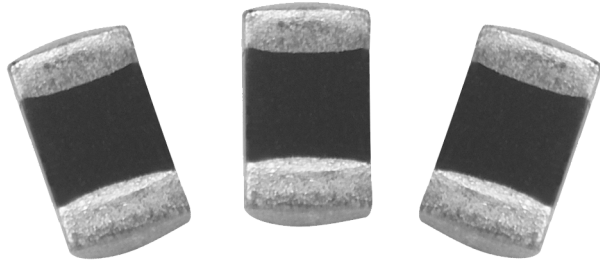


## Surface Mount Multilayer Varistors



### 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.

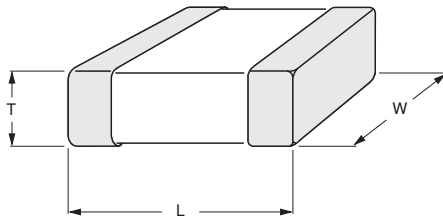
QUICK REFERENCE DATA		
PARAMETER	VALUE	UNIT
Maximum continuous voltage:		
DC	3.3 to 31	V
AC	2.5 to 25	V
Maximum clamping voltage at 1 A	12 to 65	V
Capacitance range	60 to 1300	pF
Maximum non-repetitive surge energy (10 × 1000 μs)	0.1	J
Maximum peak current (8 × 20 μs)	30	A
Response time (typical)	0.5	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

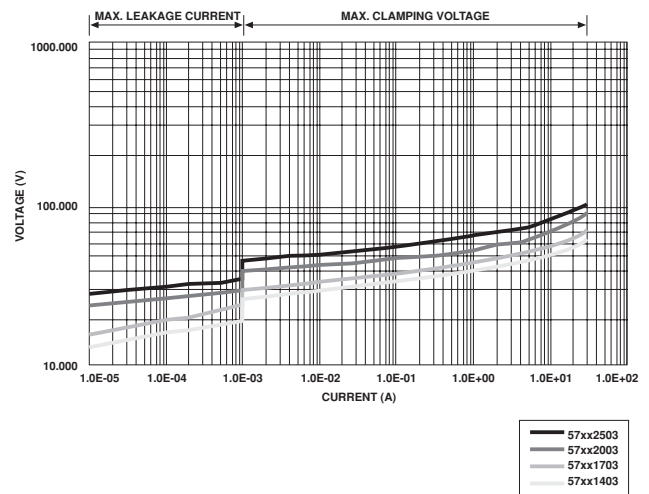
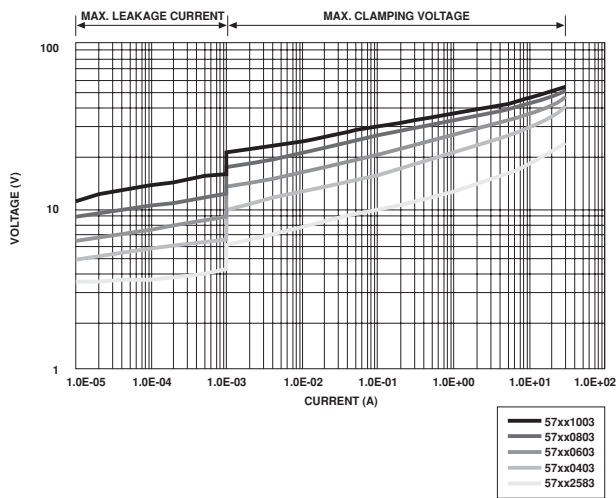
1. The sinusoidal voltage is assumed as the normal operating condition. If a non-sinusoidal voltage is present, type selection should be based on multiplying the peak voltage by a factor of 0.707.
2. The voltage measured at 1 mA meets the requirements of "paragraph 4.3 of CECC specification 42000".

**DIMENSIONS** in millimeters



L	W	T
2.0 ±0.2	1.25 ±0.15	0.8 ± 0.15

**V/I CHARACTERISTIC**



<b>TESTS AND REQUIREMENTS</b>			
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: 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; as in 9.2.1; as specified

\* D = Destructive, N = Non-destructive