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
- Fully glass coated

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

APPLICATIONS

- Data lines and I/O port protection
- Protection against 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	5.5 to 31	V
AC	4 to 25	V
Maximum clamping voltage at 1 A	21 to 65	V
Capacitance range	140 to 470	pF
Maximum non-repetitive surge energy (10×1000 µs)	0.1	J
Maximum peak current (8×20 µs)	30	A
Response time	0.5	ns
Operating temperature range	–55 to 125	°C
Storage temperature range	–25 to 40	°C
Maximum continuous dissipation	10	mW

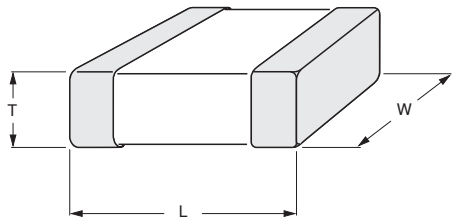
ELECTRICAL DATA AND ORDERING INFORMATION

MAXIMUM OPERATING VOLTAGE		VOLTAGE[2] at 1 mA		MAXIMUM CLAMPING VOLTAGE at 1 A (V)	CAP. at 1 kHz (pF)	TOL. (%)	CATALOG NUMBERS 2322 ... .
RMS[1] (V)	DC (V)	MIN. (V)	MAX. (V)				
4.0	5.5	6.4	9.6	21	470	typ.	574 20403
14.0	18.0	19.8	25.7	40	130	typ.	574 21403
25.0	31	35.1	45.6	65	140	typ.	574 22503

Notes

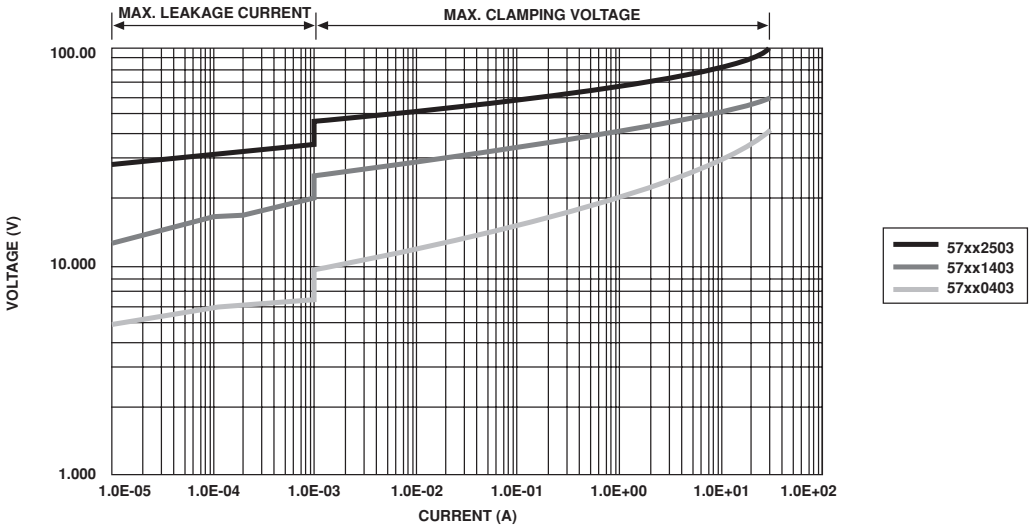
1. The sinusoidal voltage is assumed as the normal operating condition. If a non-sinusoidal voltage is present, type selection should be based on multiplying the peak voltage by a factor of 0.707.
2. The voltage measured at 1 mA meets the requirements of “paragraph 4.3 of CECC specification 42000”.

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
Sub-group A1	ND		
Visual examination *"IEC 4.3.1"*			no visible damage
Sub-group A2	ND		
Voltage (CECC 4.3); Clamping voltage (CECC B.2.7)		at 1 mA	as specified
Sub-group A3	ND		
Dimensions (gauging) *"IEC 4.3.3"*			see 4.3.3
Sub-group B1	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
Resistance to dissolution of metallization in accordance with *"IEC 60068-2-58"*, solder bath method		260 °C ±5 °C for 30 ±1 s	as in 9.2.4

* D = Destructive, N = Non-destructive