

## SMD 0603 Multilayer Varistor



### FEATURES

- Surface mount multilayer surge suppressor
- Inherent bidirectional clamping
- Excellent energy/volume ratio
- Suitable for reflow soldering
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC



**RoHS**  
COMPLIANT

### QUICK REFERENCE DATA

PARAMETER	VALUE	UNIT
Maximum Continuous Voltage DC AC	5.6 to 30.0 4.0 to 25.0	V
Maximum Clamping Voltage at 1 A	15.5 to 65	V
Capacitance Range (at 1 MHz)	150 to 825	pF
Maximum Energy (10/1000 $\mu$ s)	0.1	J
Maximum Peak Current	30	A
Operating Temperature Range	- 55 to 125	$^{\circ}$ C
Climatic Category	55/125/56	
Weight	$\pm$ 0.005	g

### APPLICATIONS

Over-voltage and transient voltage protection:

- Data lines and I/O port protection
- Protection against ESD transients
- On-board protection of IC's and transistors
- Modem protection
- LCD protection

### DESCRIPTION

Size 0603 (1608M) multilayer chip varistor with NiSn terminations.

### PACKAGING

Available in 8 mm paper tape and reel.

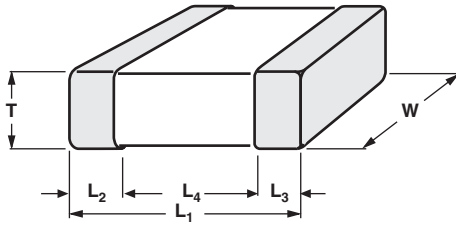
### ELECTRICAL DATA AND ORDERING INFORMATION

WORKING VOLTAGE		BREAKDOWN VOLTAGE (1 mA)	MAXIMUM CLAMPING VOLTAGE (1 A)	TYPICAL CAPACITANCE (1 MHz)	PART NUMBER	
$V_{RMS}$	$V_{DC}$	$V_b$	$V_c$	C	12NC	SAP
V	V	V	V	pF	2381 553	MLV0603E3
4.0	5.6	7.1 to 9.3	15.5	825	30406	0403T
7.0	9.0	11.0 to 14.0	20.0	550	30706	0703T
11.0	14.0	16.0 to 20.0	30.0	425	31106	1103T
14.0	18.0	23.0 to 28.0	40.0	225	31406	1403T
20.0	26.0	31.0 to 38.0	58.0	160	32006	2003T
25.0	30.0	37.0 to 46.0	65.0	150	32506	2503T

#### Notes

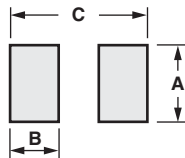
- Sinusoidal voltage assumed as normal operating condition.  
If a non-sinusoidal voltage is present, the crest voltage x 0.707 should be used for type selection.
- Voltage at a current of 1 mA, measured according to 4.3 of CECC 42 000.
- Parts are not recommended for automotive applications.

**DIMENSIONS** in millimeters



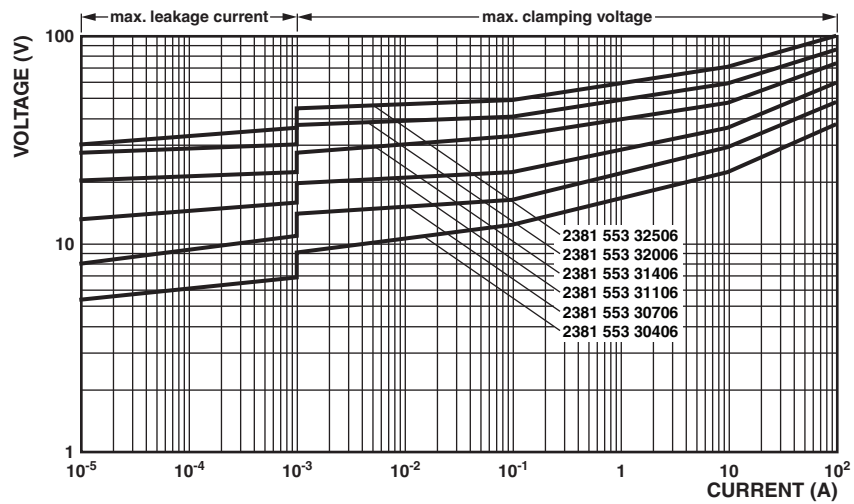
L <sub>1</sub>	W	T	L <sub>2</sub> and L <sub>3</sub>
1.6 ± 0.15	0.8 ± 0.15	0.9 max.	0.35 ± 0.15

**RECOMMENDED FOOTPRINT** in millimeters



A	B	C
1.0	1.0	3.0

**V/I CHARACTERISTICS**





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