

## SMD 0805 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

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

### PACKAGING

Available in 8 mm paper tape and reel.

### 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)	80 to 860	pF
Maximum Energy (10/1000 $\mu$ s)	0.1	J
Maximum Peak Current	30 to 40	A
Operating Temperature Range	- 55 to 125	$^{\circ}$ C
Climatic Category	55/125/56	
Weight	$\pm$ 0.011	g

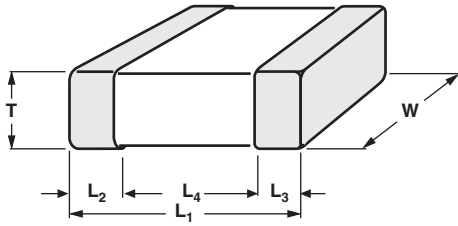
### ELECTRICAL DATA AND ORDERING INFORMATION

WORKING VOLTAGE		BREAKDOWN VOLTAGE (1 mA)	MAXIMUM CLAMPING VOLTAGE (1 A)	PEAK CURRENT (8/20 $\mu$ s)	TYPICAL CAPACITANCE (1 MHz)	PART NUMBER	
$V_{RMS}$	$V_{DC}$	$V_b$	$V_c$	$I_p$	C	12NC	SAP
V	V	V	V	A	pF	2381 553	MLV0805E3
4.0	5.6	7.1 to 9.3	15.5	40	860	40406	0403T
7.0	9.0	11.0 to 14.0	20.0	40	585	40706	0703T
11.0	14.0	16.5 to 20.3	30.0	40	280	41106	1103T
25.0	30.0	37.0 to 46.0	65.0	30	80	42506	2503T

#### Notes

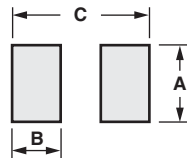
- Sinusoidal voltage assumed as normal operating condition.  
If a non-sinusoidal voltage is present, the crest voltage x 0.707 should be used for type selection.
- Voltage at a current of 1 mA, measured according to 4.3 of CECC 42 000.
- Parts are not recommended for automotive applications.

**DIMENSIONS** in millimeters



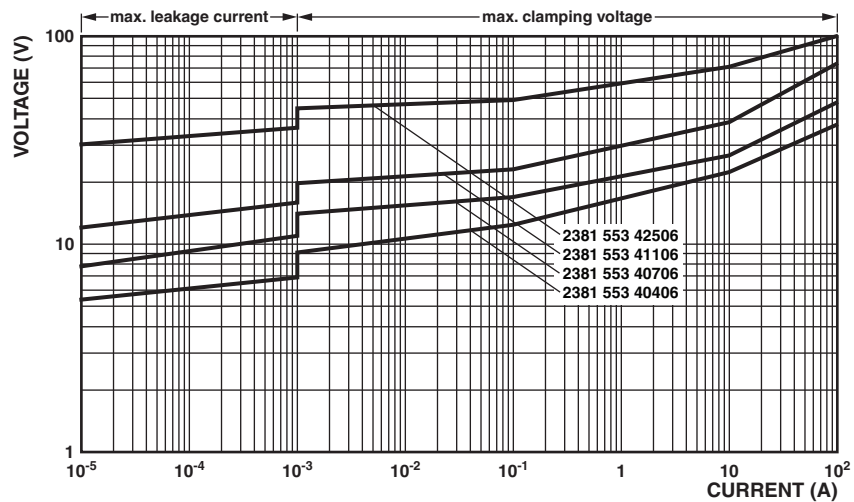
L <sub>1</sub>	W	T	L <sub>2</sub> and L <sub>3</sub>
2.0 ± 0.2	1.25 ± 0.2	1.0 max.	0.4 ± 0.3

**RECOMMENDED FOOTPRINT** in millimeters



A	B	C
1.4	1.2	3.4

**V/I CHARACTERISTICS**





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