

# Vishay BCcomponents

# **SMD 0603 Multilayer Varistor**



QUICK REFERENCE DATA					
PARAMETER	VALUE	UNIT			
Maximum continuous voltage					
DC	5.6 to 30.0	V			
AC	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 μs)	0.1	J			
Maximum peak current	30	А			
Operating temperature range	-55 to 125 °C				
Weight	± 0.005	g			

#### **FEATURES**

- · Surface mount multilayer surge suppressor
- Inherent bidirectional clamping
- Excellent energy/volume ratio
- · Suitable for reflow soldering
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912





COMPLIANT HALOGEN FREE

#### **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, component pitch 4 mm on 180 mm reels containing 4000 pieces.

ELECTRICAL DATA AND ORDERING INFORMATION						
WORKING	VOLTAGE	BREAKDOWN VOLTAGE	MAXIMUM CLAMPING VOLTAGE	TYPICAL CAPACITANCE	PART NUMBER	
V <sub>RMS</sub>	V <sub>DC</sub>	V <sub>b</sub>	V <sub>C</sub>	С	SAP	
V	V	V	V	pF	MLV0603E3	
	< 10 µA	1 mA	1 A, 8/20 μs	1 MHz		
4.0	5.6	7.1 to 9.3	15.5	825	0403T	
7.0	9.0	11.0 to 14.0	20.0	550	0703T	
11.0	14.0	16.0 to 20.0	30.0	425	1103T	
14.0	18.0	23.0 to 28.0	40.0	225	1403T	
20.0	26.0	31.0 to 38.0	58.0	160	2003T	
25.0	30.0	37.0 to 46.0	65.0	150	2503T	

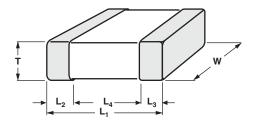
#### **Notes**

- 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.
- Breakdown voltage at a current of 1 mA, measured according to 4.5 of IEC 61051-1.
- Parts are not recommended for automotive applications.



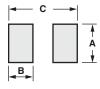
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### **DIMENSIONS** in millimeters



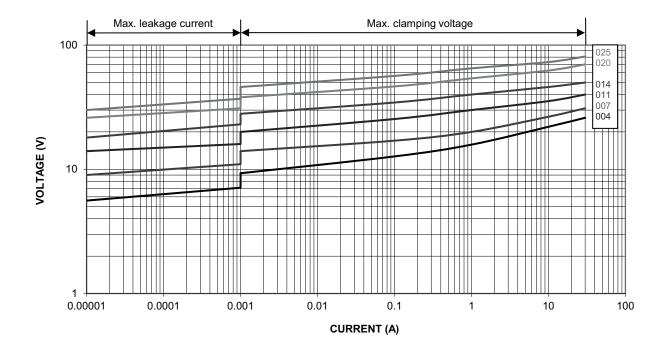
L <sub>1</sub>	W	T	L <sub>2</sub> and L <sub>3</sub>
1.6 ± 0.15	0.8 ± 0.15	0.9 max.	0.35 ± 0.15

### **RECOMMENDED FOOTPRINT** in millimeters



Α	В	С
1.0	1.0	3.0

### V/I CHARACTERISTICS





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