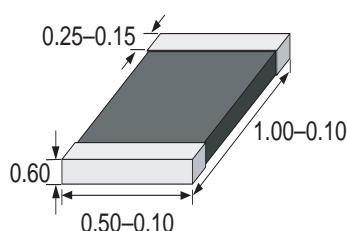


# TVS 0402 SMD

This product is not recommended for new designs. Please refer to Littelfuse series MLA.



### Dimensions (mm)



## Multilayer Ceramic Transient Voltage Suppressor Low Capacity

### Features

Thin layer, high precise techniques  
Lead free  
Bi-directional clamping  
Standard and low capacity  
Available with Nickel/Tin end termination

### Applications

Circuit board and ESD, EFT

Protection of:

- I/O ports
- Keyboards
- LCD's
- Sensors

### WebLinks

Further info see:

[www.wickmanngroup.com](http://www.wickmanngroup.com)

Further technical info see technical varistor file:

[www.wickmanngroup.com/download/techvaristor.pdf](http://www.wickmanngroup.com/download/techvaristor.pdf)

## Specifications

### Packaging

Tape and Reel  
T 7 inch reel (10.000 pcs.)

### Material

Body: Ceramic (ZnO)  
Terminals: Ni/Sn plated (code "P")  
Ag/Pt/Pd non plated (code "N" on request)

### Operating Temperature

-55 to +125°C

### Solderability

acc. to IEC 60068-2-58  
235°C, 2s

### Soldering Heat Resistance

260°C, 10 sec. (IEC 60068-2-58)  
280°C, 5 sec. (IEC 60068-2-58)

### Response Time

<0.5ns

### Temperature coefficient (αV) of clamping voltage (V<sub>c</sub>) @ specified test current

<0.01%/°C

### Power dissipation

0.05W max.

### Standards

IEC 61000-4-2  
MIL-STD-883C

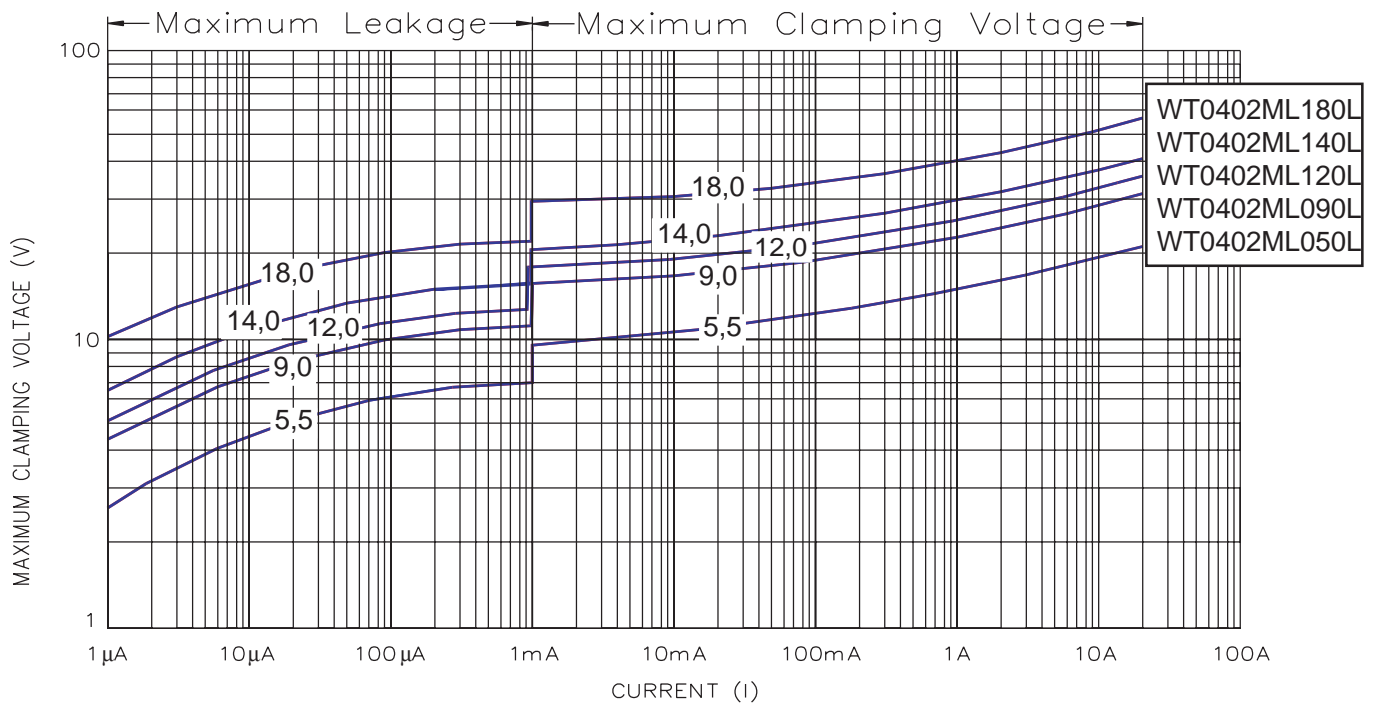
Type	Maximum Ratings (125°C)					Specifications (25°C)				
	max. cont. working voltage		max. non-repetitive surge current (8/20 μs)	max. non-repetitive surge energy (10/1000 μs)	max. clamping voltage at spec. current (8/20 μs)	nominal voltage at 1mA (DC) test current		typ. capacitance		typ. inductance
	V <sub>M(DC)</sub> (V)	V <sub>M(AC)</sub> (V)	I <sub>TM</sub> (A)	W <sub>TM</sub> (J)	V <sub>c</sub> (V@A)	V <sub>N(DC)min.</sub> (V)	V <sub>N(DC)max.</sub> (V)	C <sub>typ.</sub> (pF) 1KHz	C <sub>typ.</sub> (pF) 1MHz	L <sub>typ.</sub> (nH)
WT0402ML050L	5,5	4,0	20	0,05	15,5 @ 1	7,1	9,8	330	280	0,8
WT0402ML090L	9,0	6,0	20	0,05	23,0 @ 1	10,0	14,5	230	200	0,8
WT0402ML120L	12,0	9,0	20	0,05	27,0 @ 1	14,0	18,5	180	160	0,8
WT0402ML140L	14,0	11,0	20	0,05	30,0 @ 1	16,0	21,0	160	145	0,8
WT0402ML180L	18,0	14,0	20	0,05	40,0 @ 1	22,0	28,0	95	85	0,8

### Order Information

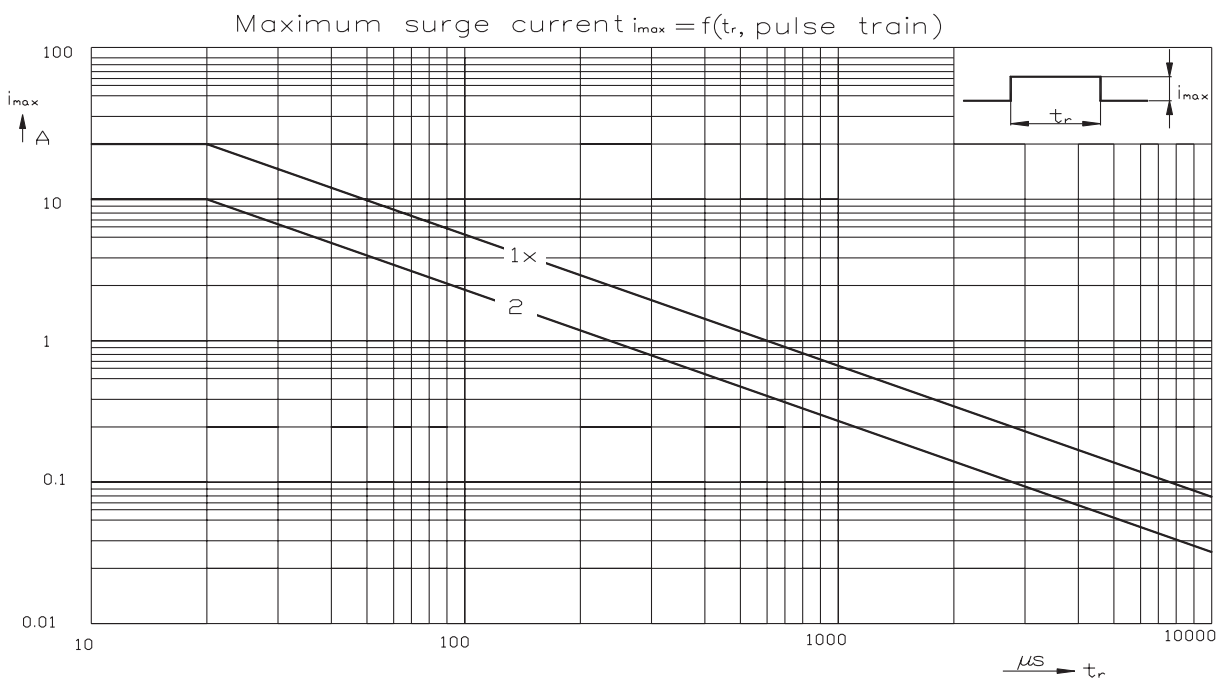
Qty.	Order-Number	Type	Terminal Code	Packaging
		WT0402ML050	L	T

Specifications are subject to change without notice

## TVS 0402 SMD



V/I Characteristics



Maximum Surge Current