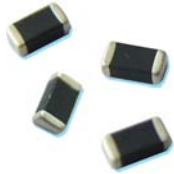
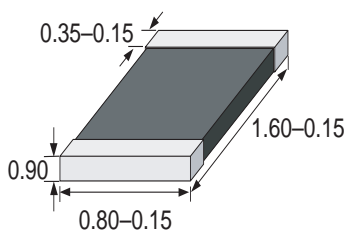


# TVS 0603 SMD

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



## Dimensions (mm)



## Multilayer Ceramic Transient Voltage Suppressor Standard 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 (4.000 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

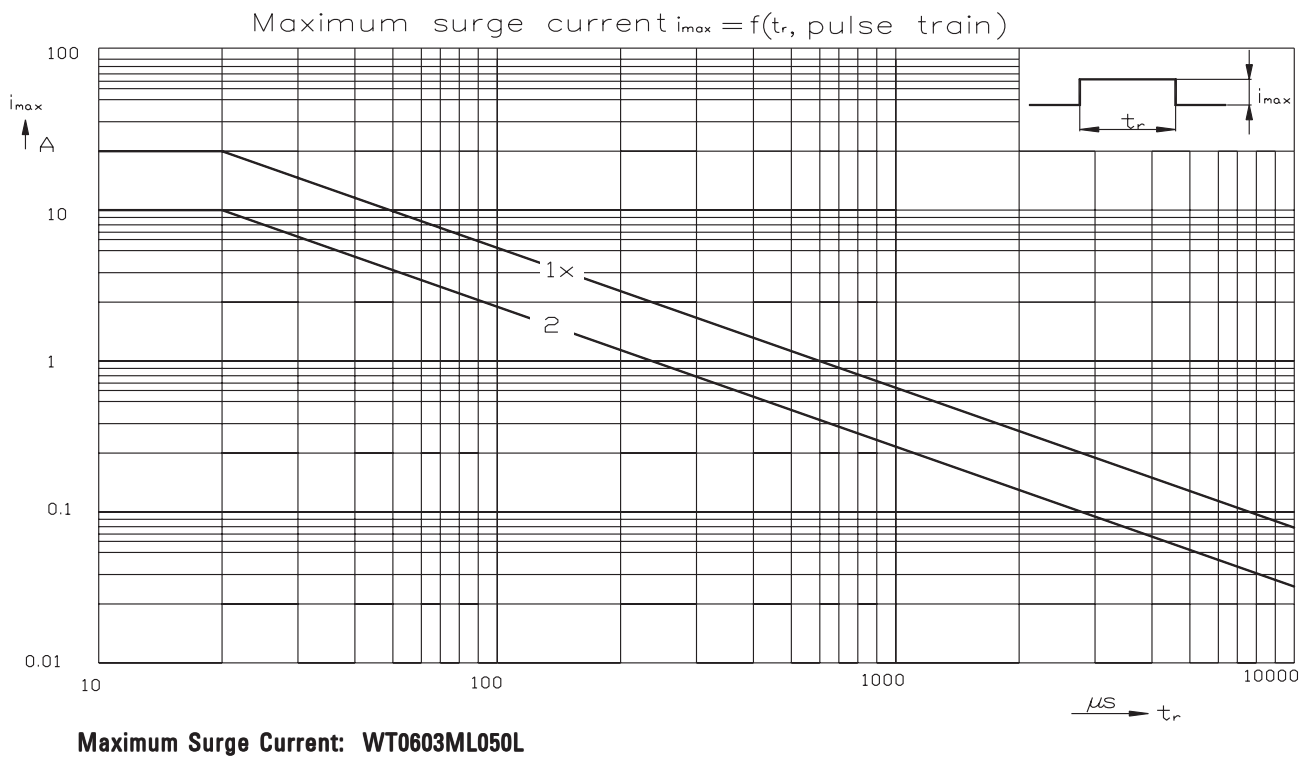
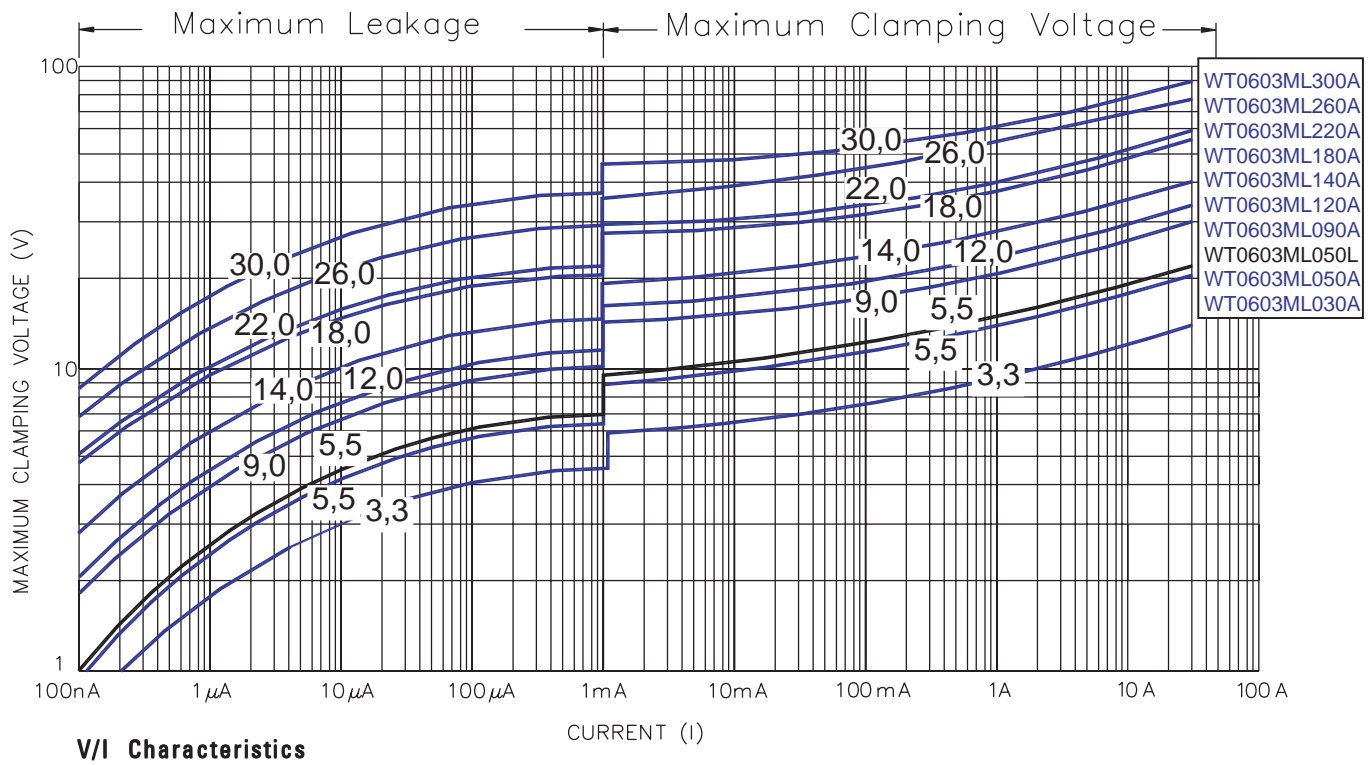
| Type         | Maximum Ratings (125°C)    |                        |   |   |  | Specifications (25°C)                    |                            |                             |                             |                        |
|--------------|----------------------------|------------------------|---|---|--|--|----------------------------|-----------------------------|-----------------------------|------------------------|
|              | 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) |
| WT0603ML050L | 5,5                        | 4,0                    | 20  | 0,05  | 15,5 @ 1   | 7,1                                      | 9,8                        | 420                         | 360                         | 1,0                    |
| WT0603ML030A | 3,3                        | 2,5                    | 30  | 0,10  | 10,0 @ 2   | 3,8                                      | 7,0                        | 1260                        | 1080                        | 1,0                    |
| WT0603ML050A | 5,5                        | 4,0                    | 30  | 0,10  | 15,5 @ 2   | 7,1                                      | 9,8                        | 750                         | 640                         | 1,0                    |
| WT0603ML090A | 9,0                        | 6,0                    | 30  | 0,10  | 23,0 @ 2   | 10,0                                     | 14,5                       | 340                         | 300                         | 1,0                    |
| WT0603ML120A | 12,0                       | 9,0                    | 30  | 0,10  | 27,0 @ 2   | 14,0                                     | 18,5                       | 415                         | 340                         | 1,0                    |
| WT0603ML140A | 14,0                       | 11,0                   | 30  | 0,10  | 30,0 @ 2   | 16,0                                     | 21,0                       | 280                         | 240                         | 1,0                    |
| WT0603ML180A | 18,0                       | 14,0                   | 30  | 0,10  | 40,0 @ 2   | 22,0                                     | 28,0                       | 250                         | 220                         | 1,0                    |
| WT0603ML220A | 22,0                       | 17,0                   | 30  | 0,10  | 44,0 @ 2   | 24,3                                     | 30,0                       | 310                         | 270                         | 1,0                    |
| WT0603ML260A | 26,0                       | 20,0                   | 30  | 0,10  | 58,0 @ 2   | 29,5                                     | 38,0                       | 140                         | 130                         | 1,0                    |
| WT0603ML300A | 30,0                       | 25,0                   | 30  | 0,10  | 65,0 @ 2   | 35,0                                     | 43,0                       | 120                         | 110                         | 1,0                    |

## Order Information

| Qty. | Order-Number | Type        | Terminal Code | Packaging |
|------|--------------|-------------|---------------|-----------|
|      |              | WT0603ML140 | A             | P         |
|      |              |             |               | T         |

Specifications are subject to change without notice

## TVS 0603 SMD



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Maximum surge current  $i_{max} = f(t_r, \text{pulse train})$

