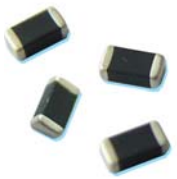
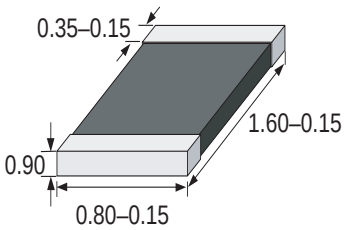
# TVS 0603 SMD

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 infos see:**
www.wickmanngroup.com

**Further technical infos see technical varistor file:**
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 (Vc) @ specified test current**
<0.01%/°C

**Power dissipation**
0.05W max.

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

| | Maximum Ratings (125°C) | | | | | Specifications (25°C) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Type | 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 |
| | $V_{M(DC)}$ (V) | $V_{M(AC)}$ (V) | $I_{TM}$ (A) | $W_{TM}$ (J) | $V_c$ (V@A) | $V_{N(DC)min.}$ (V) | $V_{N(DC)max.}$ (V) | 1KHz $C_{typ.}$ (pF) | 1MHz $C_{typ.}$ (pF) | $L_{typ.}$ (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 |

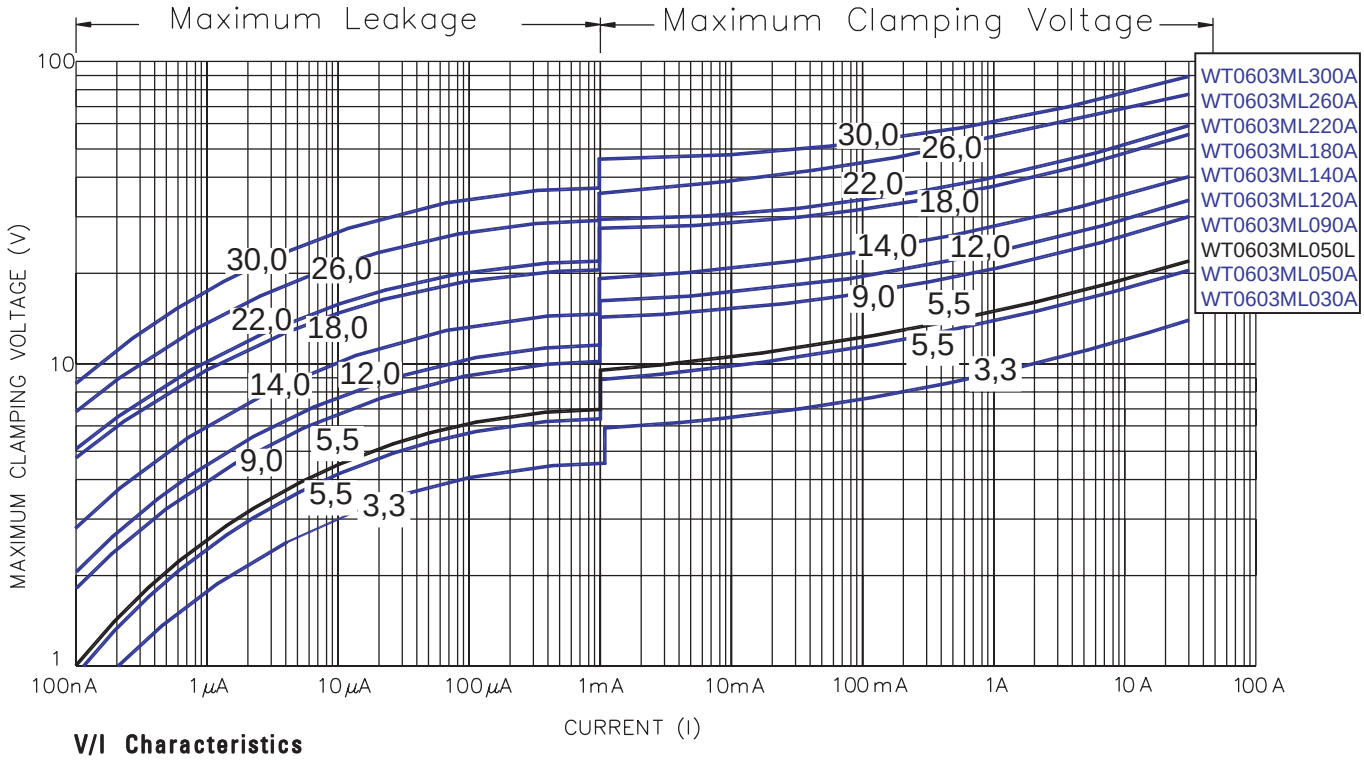
**Order Information**

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

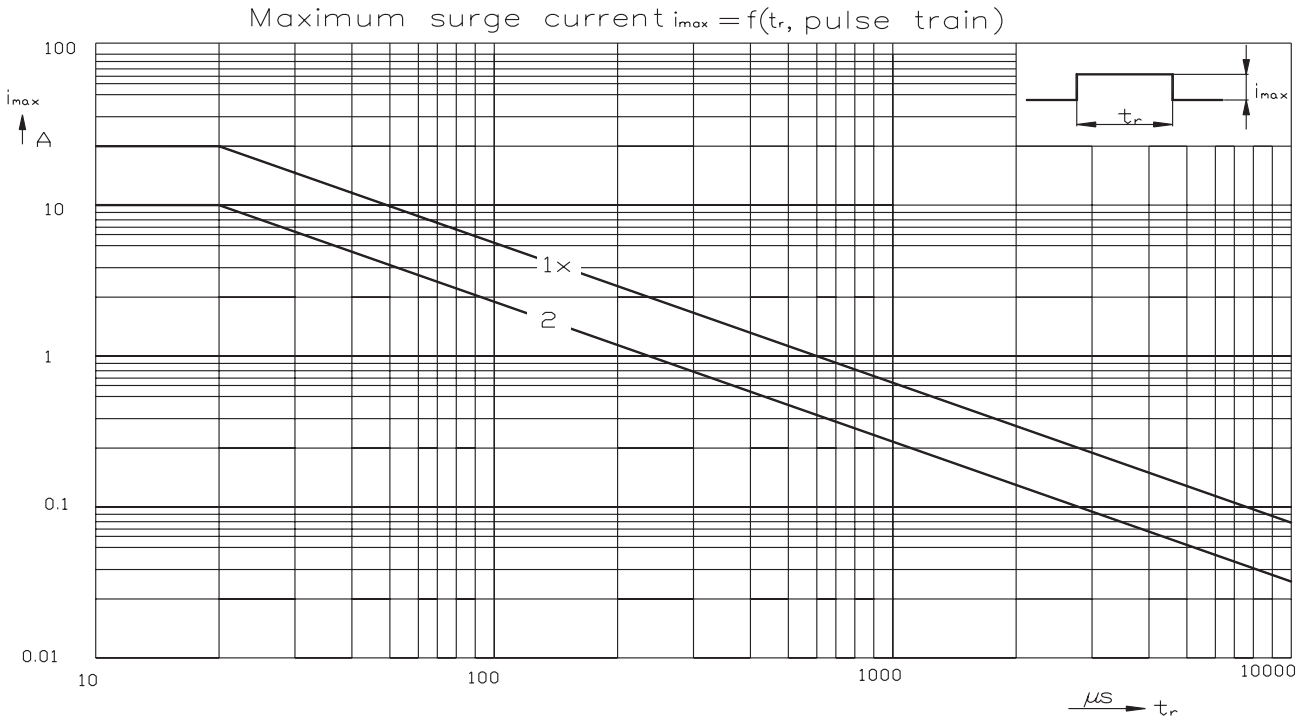
Specifications are subject to change without notice


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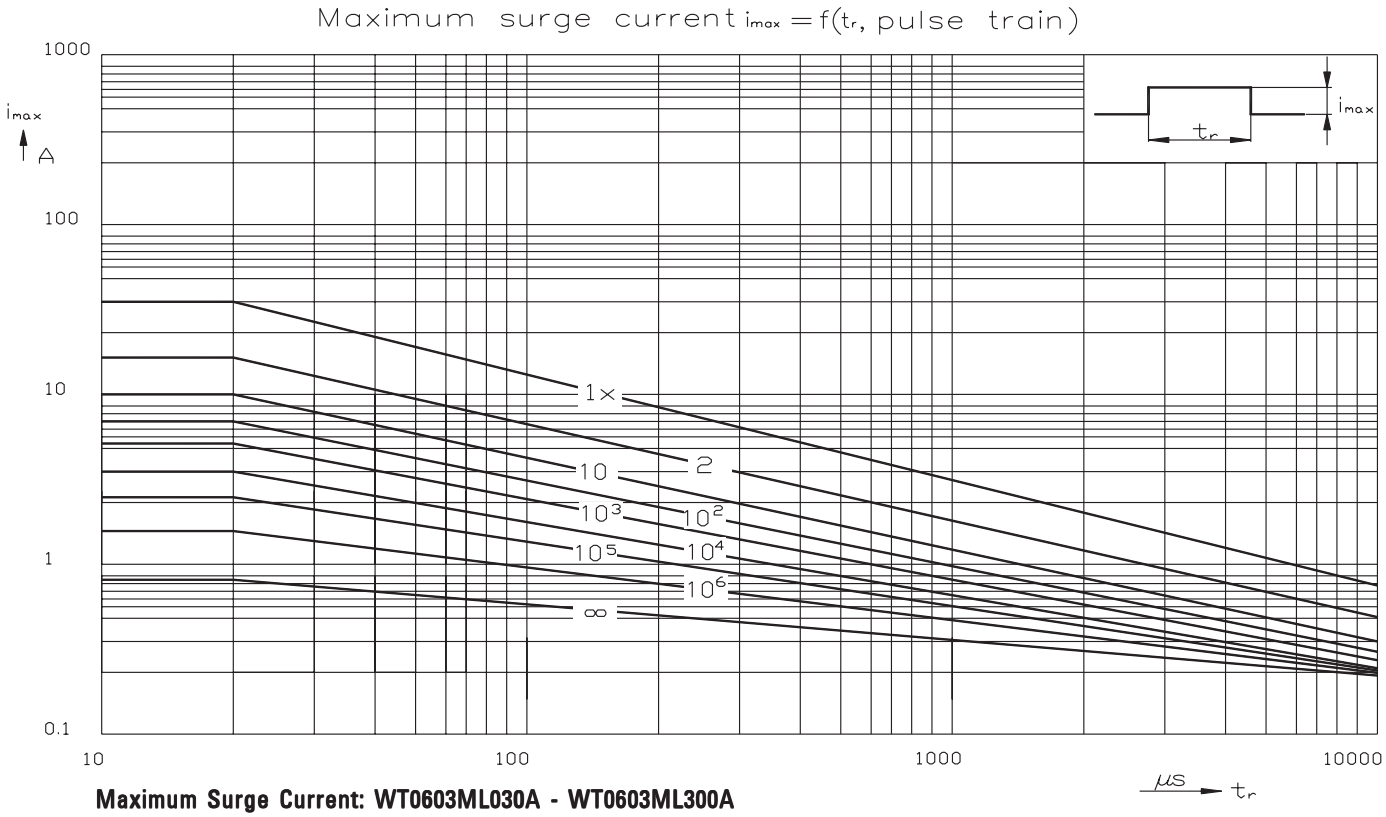



**V/I Characteristics**




**Maximum Surge Current: WT0603ML050L**

# TVS 0603 SMD




**Maximum Surge Current: WT0603ML030A - WT0603ML300A**