

# TVS 0603 SMD

## Multilayer Ceramic Transient Voltage Suppressor Standard Capacity

## 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)

### Features

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

**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 ( $\alpha_V$ ) of clamping voltage ( $V_C$ ) @ specified test current**  
<0.01%/°C

**Power dissipation**  
0.05W max.

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

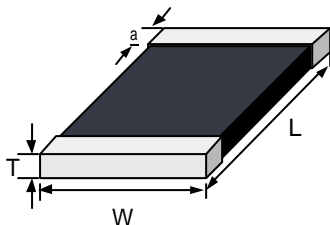
### Applications

Circuit board and ESD, EFT

Protection of:

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

Dimensions



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
T	-	0.035	-	0.90
a	0.008	0.020	0.20	0.50
L	0.057	0.069	1.45	1.75
W	0.026	0.037	0.65	0.95

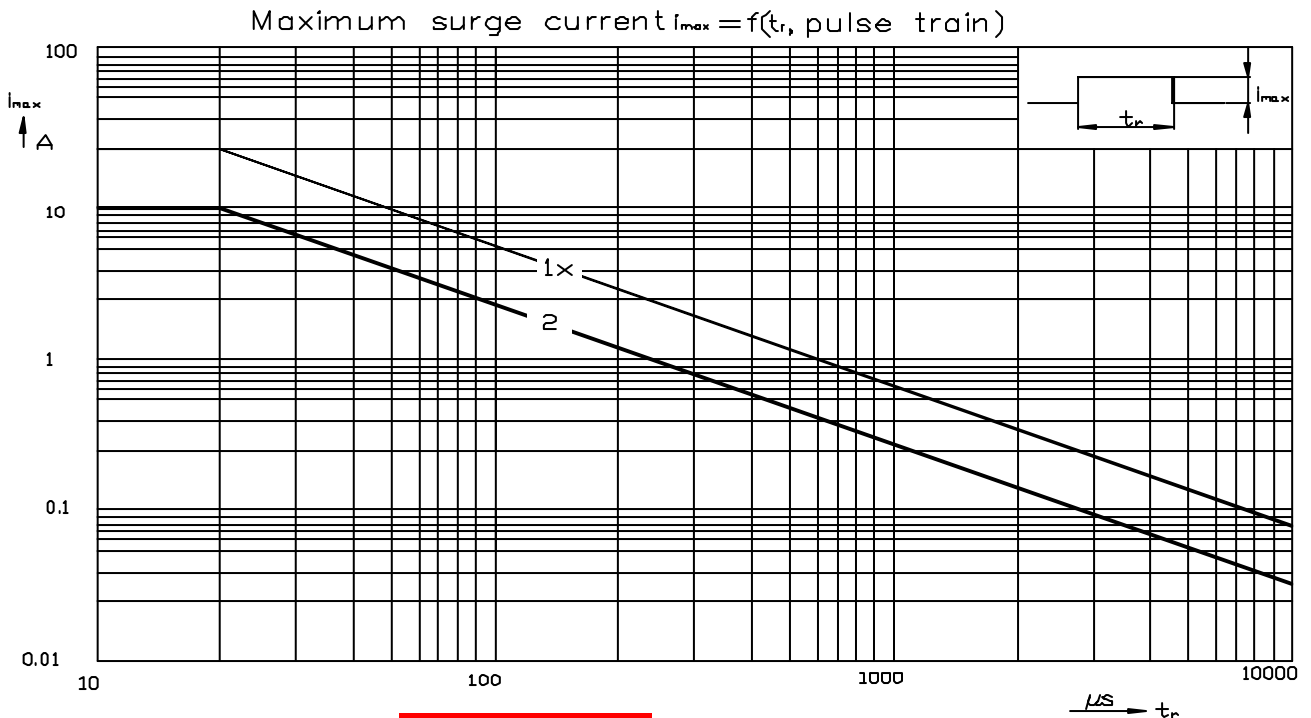
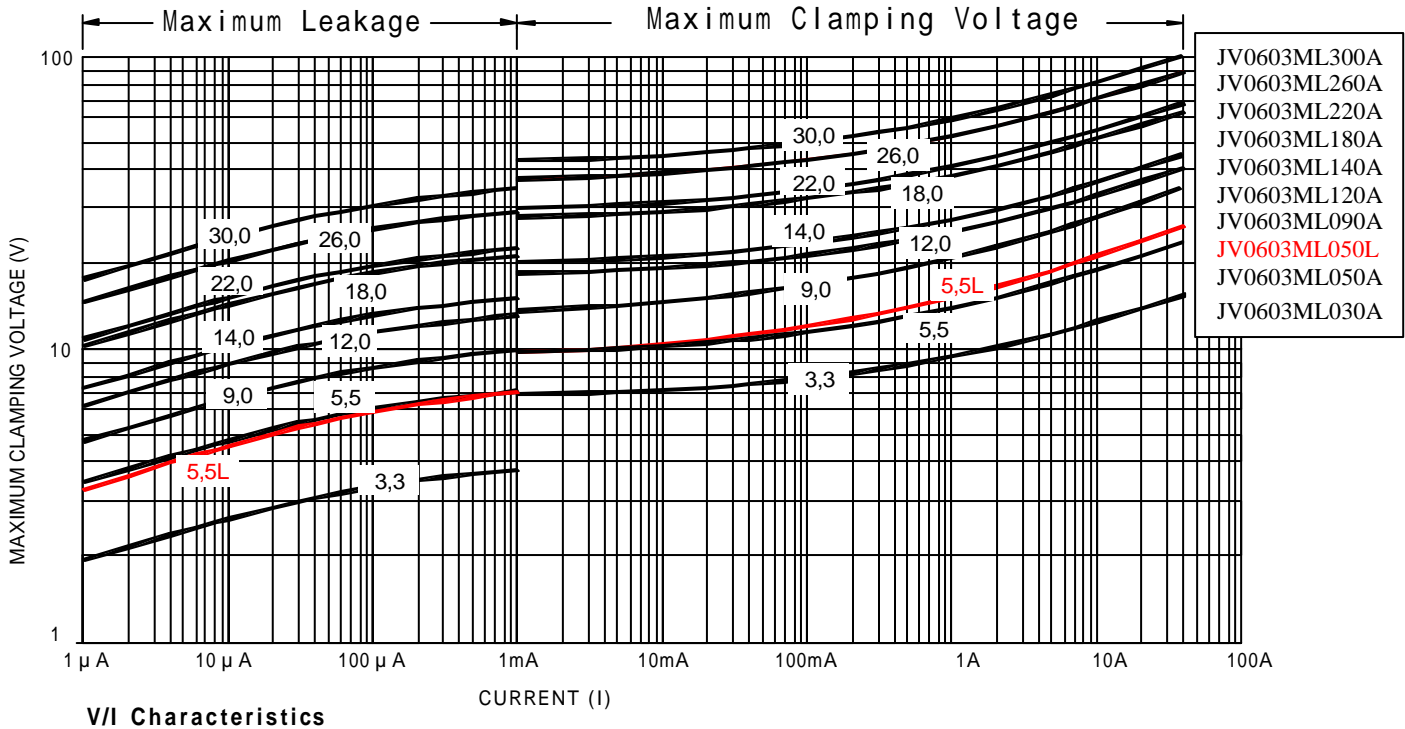
Type	Maximum Ratings (125°C)					Specifications (25°C)				
	max. cont. working voltage		max. non-repetitive surge current (8/20 $\mu$ s)	max. non-repetitive surge energy (10/1000 $\mu$ s)	max. clamping voltage at spec. current (8/20 $\mu$ s)	nominal voltage at 1mA (DC) test current		typ. capacitance		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)
JV0603ML050L	5,5	4,0	20	0,05	15,5 @ 1	7,1	9,8	420	360	1,0
JV0603ML030A	3,3	2,5	30	0,10	10,0 @ 2	3,8	7,0	1260	1080	1,0
JV0603ML050A	5,5	4,0	30	0,10	15,5 @ 2	7,1	9,8	750	640	1,0
JV0603ML090A	9,0	6,0	30	0,10	23,0 @ 2	10,0	14,5	340	300	1,0
JV0603ML120A	12,0	9,0	30	0,10	27,0 @ 2	14,0	18,5	415	340	1,0
JV0603ML140A	14,0	11,0	30	0,10	30,0 @ 2	16,0	21,0	280	240	1,0
JV0603ML180A	18,0	14,0	30	0,10	40,0 @ 2	22,0	28,0	250	220	1,0
JV0603ML220A	22,0	17,0	30	0,10	44,0 @ 2	24,3	30,0	310	270	1,0
JV0603ML260A	26,0	20,0	30	0,10	58,0 @ 2	29,5	38,0	140	130	1,0
JV0603ML300A	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
		JV0603ML140	A	P
				T

Specifications are subject to change without notice

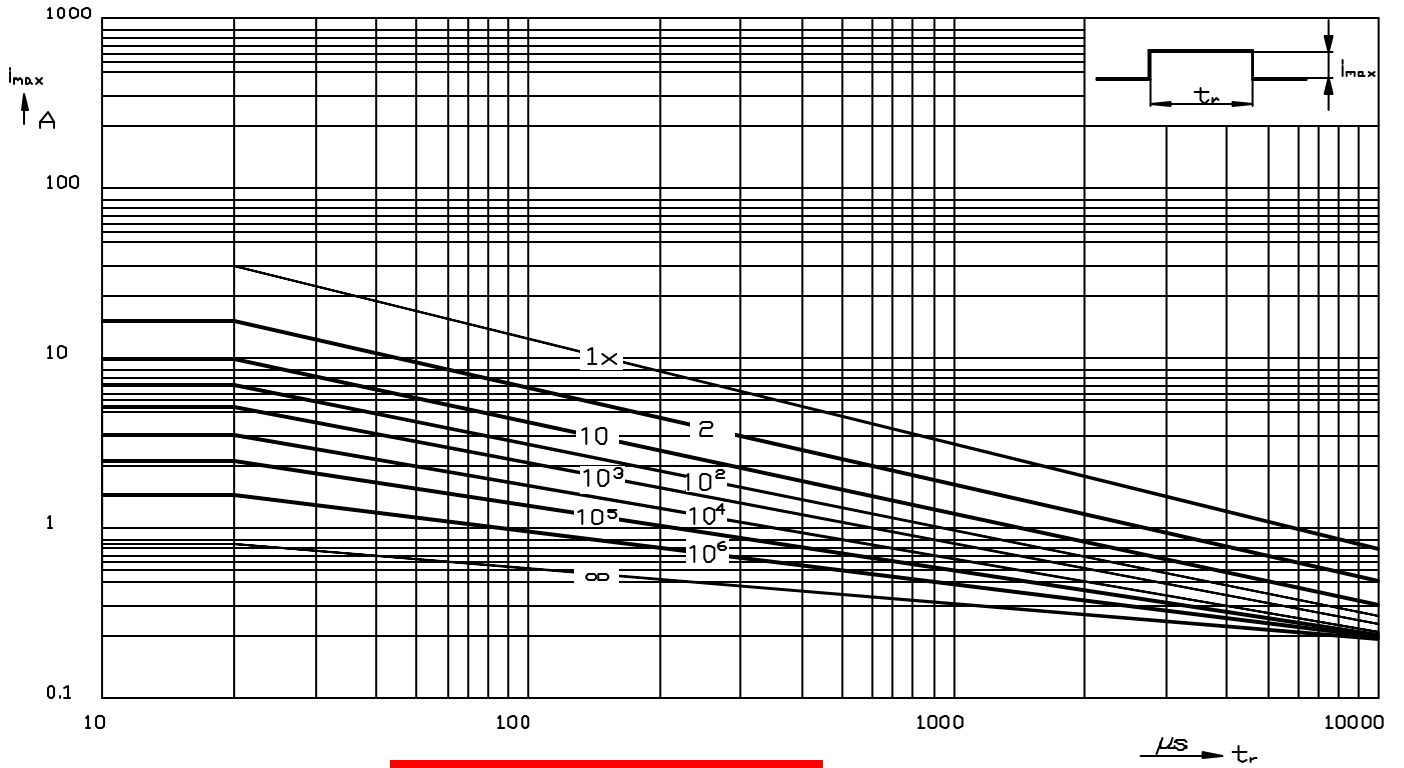
## TVS 0603 SMD



Maximum Surge Current: **JV0603ML050L**

## TVS 0603 SMD

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



Maximum Surge Current: **.1V0603MT.030A-.1V0603MT.300A**