



TVS 1812 SMD

Multilayer Ceramic Transient Voltage Suppressor Standard Capacity

Specifications



Packaging
Tape and Reel
T 7 inch reel (1.000 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 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)

Applications

Circuit board and ESD, EFT

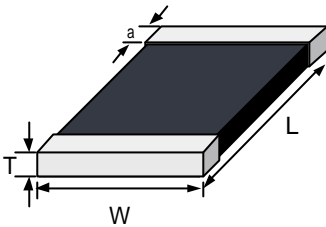
Response Time
<0.5ns

Temperature coefficient (αV) of clamping voltage (V_c) @ specified test current
<0.01%/°C

Power dissipation
0.3W max.

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

Dimensions



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
T	-	0.071	-	1.80
a	0.010	0.030	0.25	0.75
L	0.163	0.191	4.15	4.85
W	0.114	0.138	2.90	3.50

Maximum Ratings (125°C)

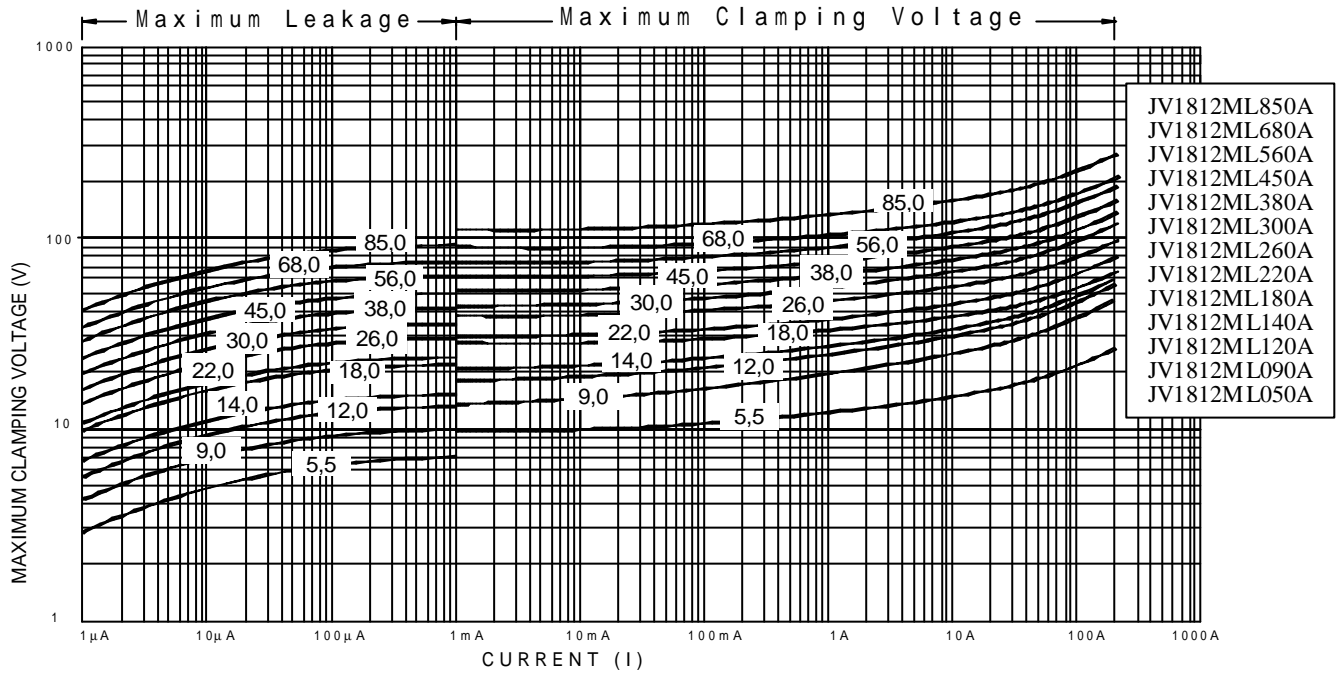
Type	max. cont. working voltage		max. non-repetitive surge current (8/20 μ s)	max. non-repetitive surge energy (10/1000 μ s)	max. clamping voltage at spec. current (8/20 μ s)	nominal voltage at 1mA (DC) test current		typ. capacitance		typ. inductance
	$V_{M(DC)}$ (V)	$V_{M(AC)}$ (V)	I_{TM} (A)	W_{TM} (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)
JV1812ML050A	5,5	4,0	500	0,8	15,5 @ 10	7,1	9,8	12900	11200	2,5
JV1812ML090A	9,0	6,0	500	1,0	25,0 @ 10	10,0	14,5	7100	6070	2,5
JV1812ML120A	12,0	9,0	800	1,8	30,0 @ 10	14,0	18,5	6500	5260	2,5
JV1812ML140A	14,0	11,0	800	2,0	33,0 @ 10	16,0	21,0	4410	3940	2,5
JV1812ML180A	18,0	14,0	800	2,3	38,0 @ 10	22,0	28,0	4000	3500	2,5
JV1812ML220A	22,0	17,0	800	2,5	44,0 @ 10	24,3	30,0	3670	2990	2,5
JV1812ML260A	26,0	20,0	800	3,0	54,0 @ 10	29,5	38,0	2670	2320	2,5
JV1812ML300A	30,0	25,0	800	3,6	65,0 @ 10	35,0	43,0	2320	1890	2,5
JV1812ML380A	38,0	30,0	800	4,2	77,0 @ 10	42,3	51,7	1960	1680	2,5
JV1812ML450A	45,0	35,0	500	4,5	90,0 @ 10	50,0	61,0	1370	1150	2,5
JV1812ML560A	56,0	40,0	500	4,8	110,0 @ 10	61,2	74,0	950	730	2,5
JV1812ML680A	68,0	50,0	400	4,5	135,0 @ 10	74,0	90,0	590	500	2,5
JV1812ML850A	85,0	60,0	400	5,8	165,0 @ 10	91,0	115,0	530	450	2,5

Order Information

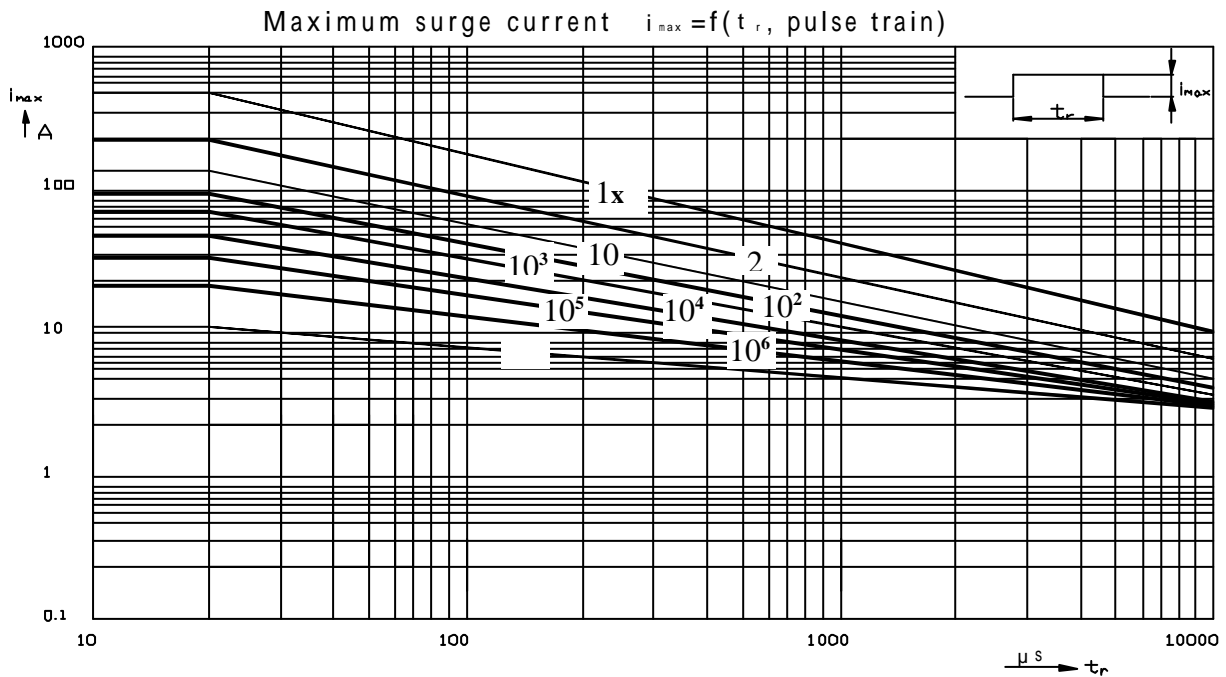
Qty.	Order-Number	Type	Terminal Code	Packaging
		JV 1812ML140	A	P
				T

Specifications are subject to change without notice

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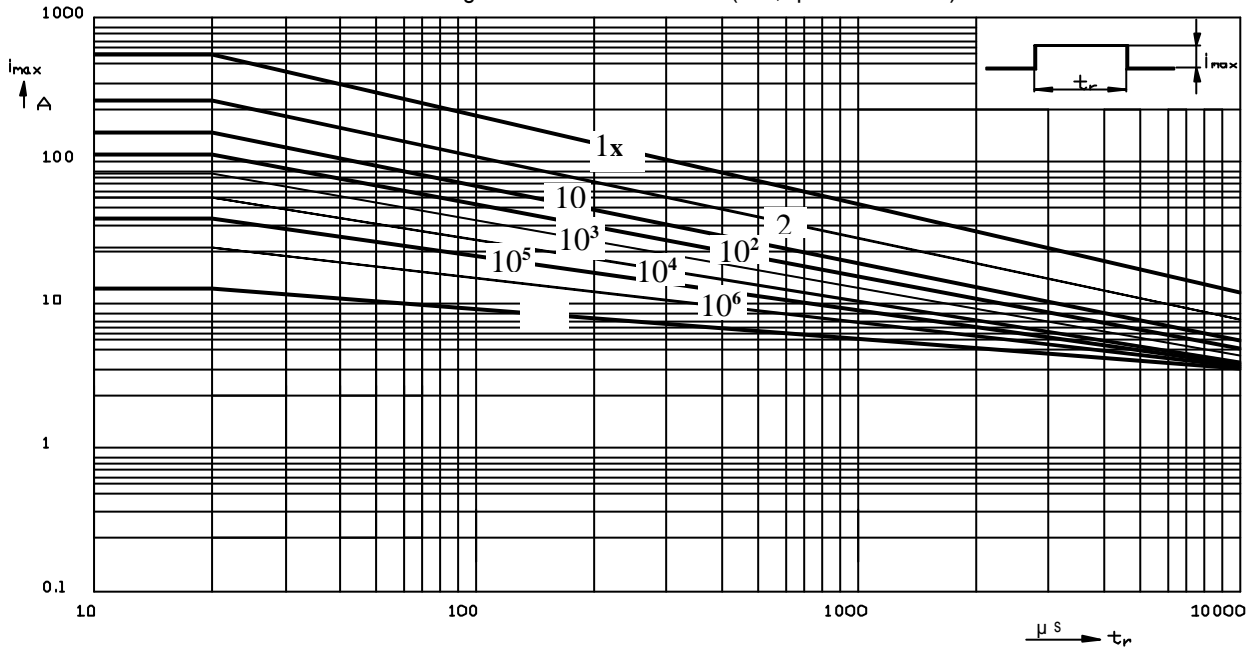
V/I Characteristics



Maximum Surge Current: **JV1812ML680A - JV1812ML850A**

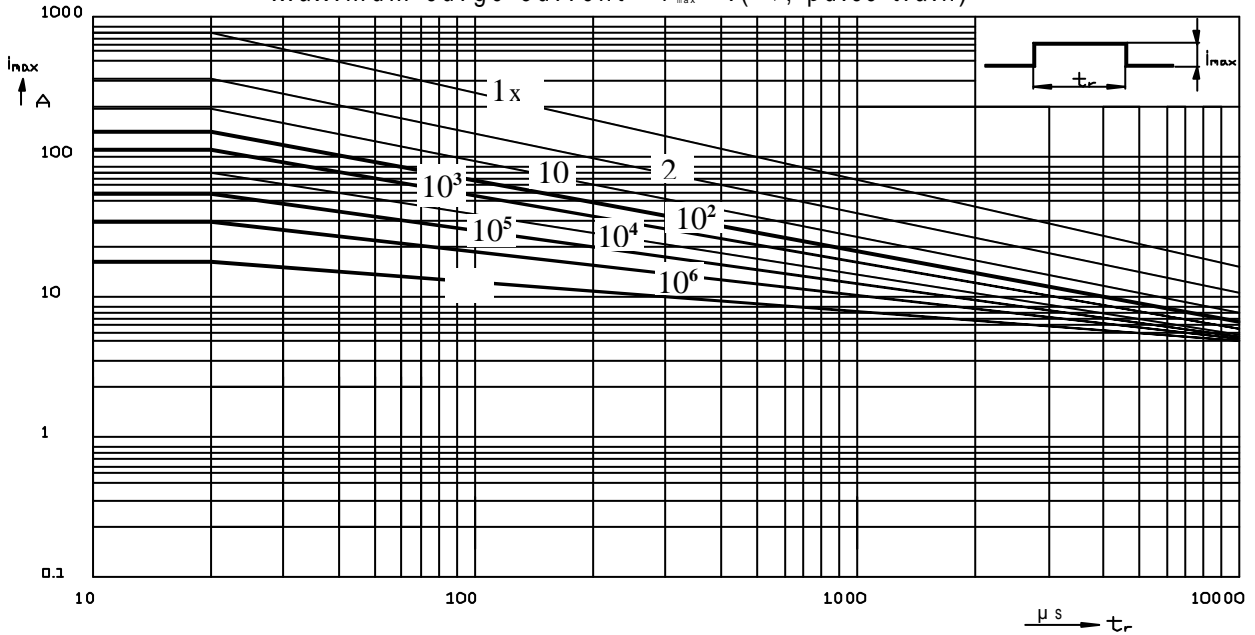
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Maximum surge current $i_{max} = f(t_r, \text{pulse train})$



Maximum Surge Current: **JV1812ML050A - JV1812ML090A, JV1812ML450A - JV1812ML560A**

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



Maximum Surge Current: **JV1812ML120A - JV1812ML380A**