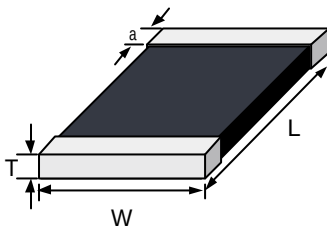


TVS 1210 SMD



Dimensions



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
T	-	0.071	-	1.80
a	0.010	0.030	0.25	0.75
L	0.114	0.138	2.90	3.50
W	0.110	0.087	2.20	2.80

Multilayer Ceramic Transient Voltage Suppressor Standard Capacity

Features

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

Applications

Circuit board and ESD, EFT

Protection of:

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

Specifications

Packaging

Tape and Reel

T 7 inch reel (2.000 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_C) @ specified test current

<0.01%/°C

Power dissipation

0.15W max.

Standards

IEC 61000-4-2

MIL-STD-883C

Maximum Ratings (125°C)

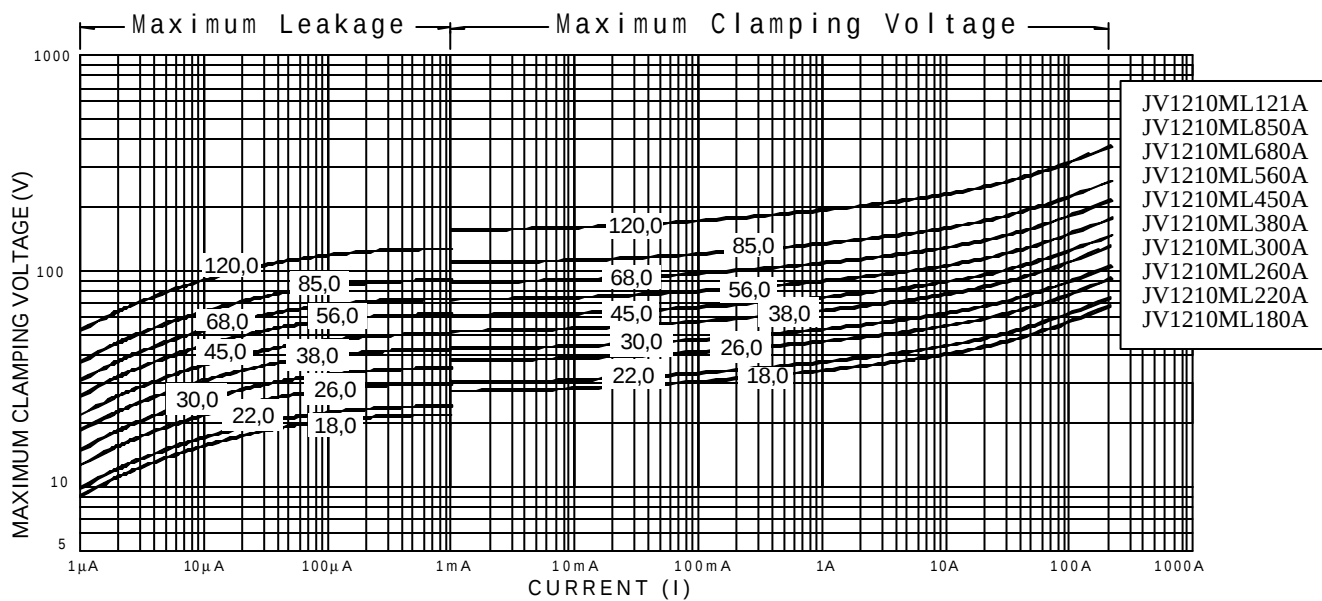
Type	max. cont. working voltage		max. non-repetitive surge current	max. non-repetitive surge energy	max. clamping voltage at spec. current	nominal voltage at 1mA (DC) test current		typ. capacitance		typ. inductance
			(8/20 μ s)	(10/1000 μ s)	(8/20 μ s)			1KHz	1MHz	
	$V_{W(DC)}$ (V)	$V_{M(AC)}$ (V)	I_{TM} (A)	W_{TM} (J)	V_C (V@A)	$V_{N(DC)min.}$ (V)	$V_{N(DC)max.}$ (V)	$C_{typ.}$ (pF)	$C_{typ.}$ (pF)	$L_{typ.}$ (nH)
JV1210ML180A	18,0	14,0	400	1,50	40,0 @ 10	22,0	28,0	3230	2800	1,8
JV1210ML220A	22,0	17,0	300	1,70	44,0 @ 10	24,3	30,0	2350	2050	1,8
JV1210ML260A	26,0	20,0	300	1,90	54,0 @ 10	29,5	38,0	1750	1480	1,8
JV1210ML300A	30,0	25,0	280	1,20	62,0 @ 10	35,0	43,0	1330	1150	1,8
JV1210ML380A	38,0	30,0	250	2,00	78,0 @ 10	42,3	51,7	1130	950	1,8
JV1210ML450A	45,0	35,0	250	2,00	90,0 @ 10	50,0	61,0	850	715	1,8
JV1210ML560A	56,0	40,0	250	2,30	110,0 @ 10	61,2	74,0	595	500	1,8
JV1210ML680A	68,0	50,0	250	1,50	135,0 @ 10	74,0	90,0	430	370	1,8
JV1210ML850A	85,0	60,0	250	1,50	165,0 @ 10	91,0	115,0	230	200	1,8
JV1210ML121A	120,0	107,0	125	1,50	230,0 @ 10	135,0	165,0	75	65	1,8

Order Information

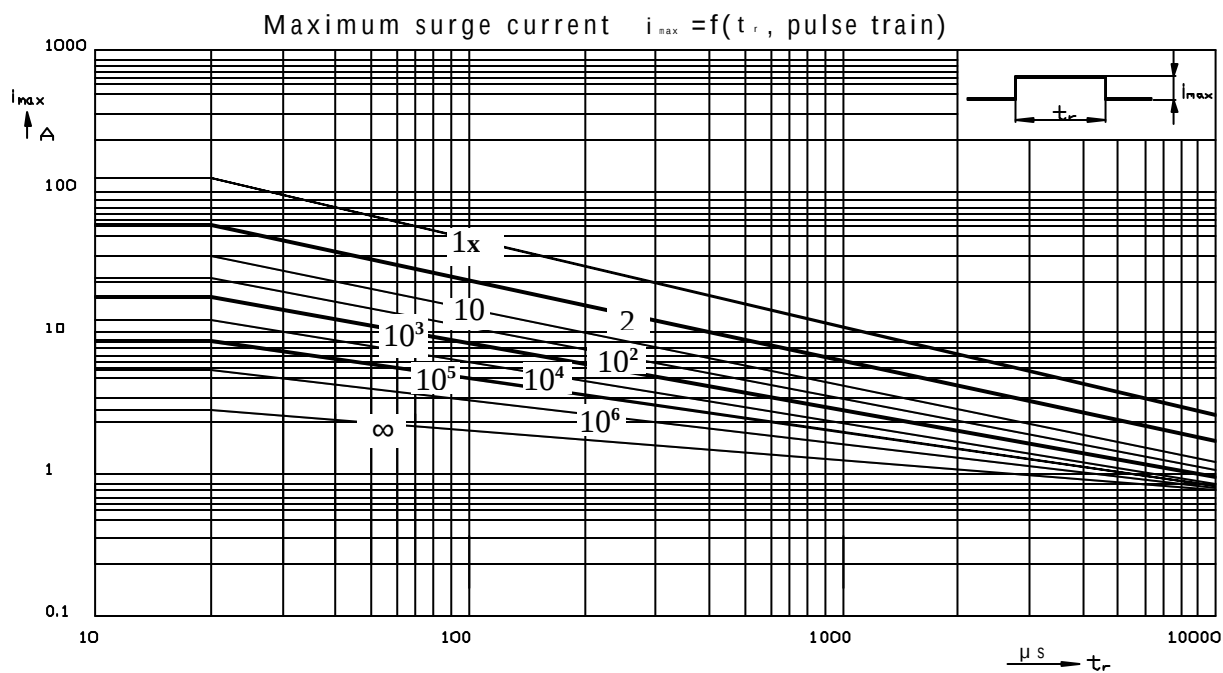
Qty.	Order-Number	Type	Terminal Code	Packaging
		JV 1210ML560	A	P
				T

Specifications are subject to change without notice

TVS 1210 SMD

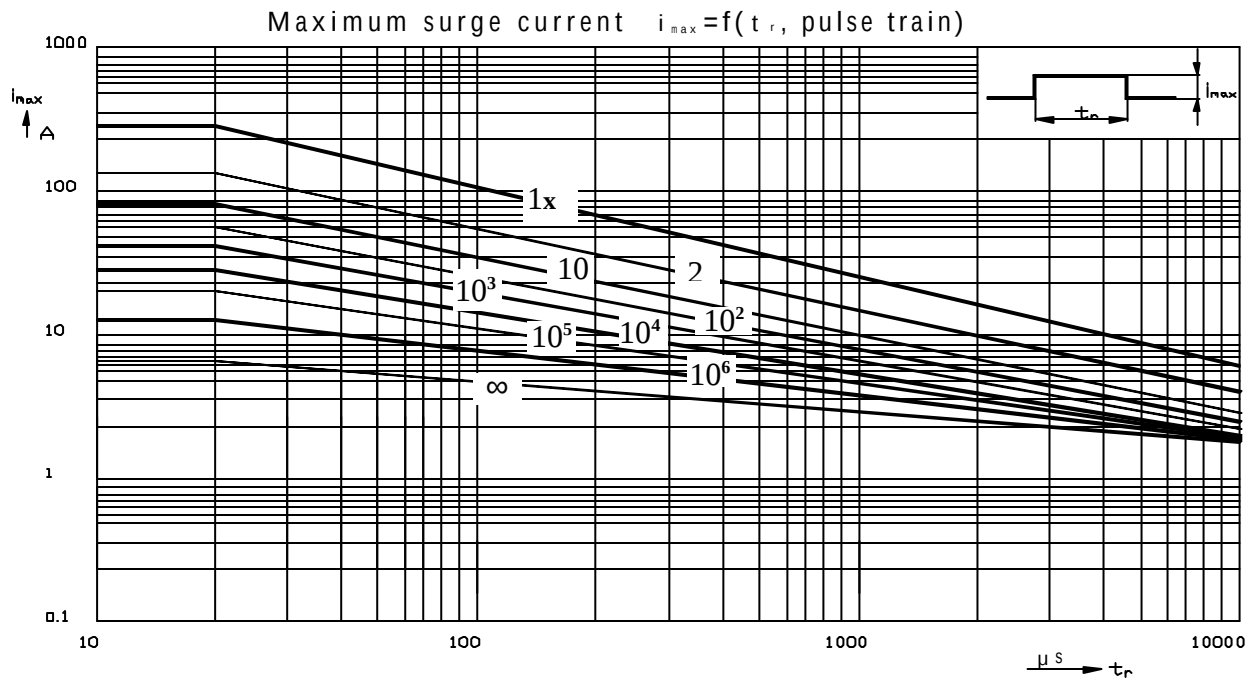


V/I Characteristics

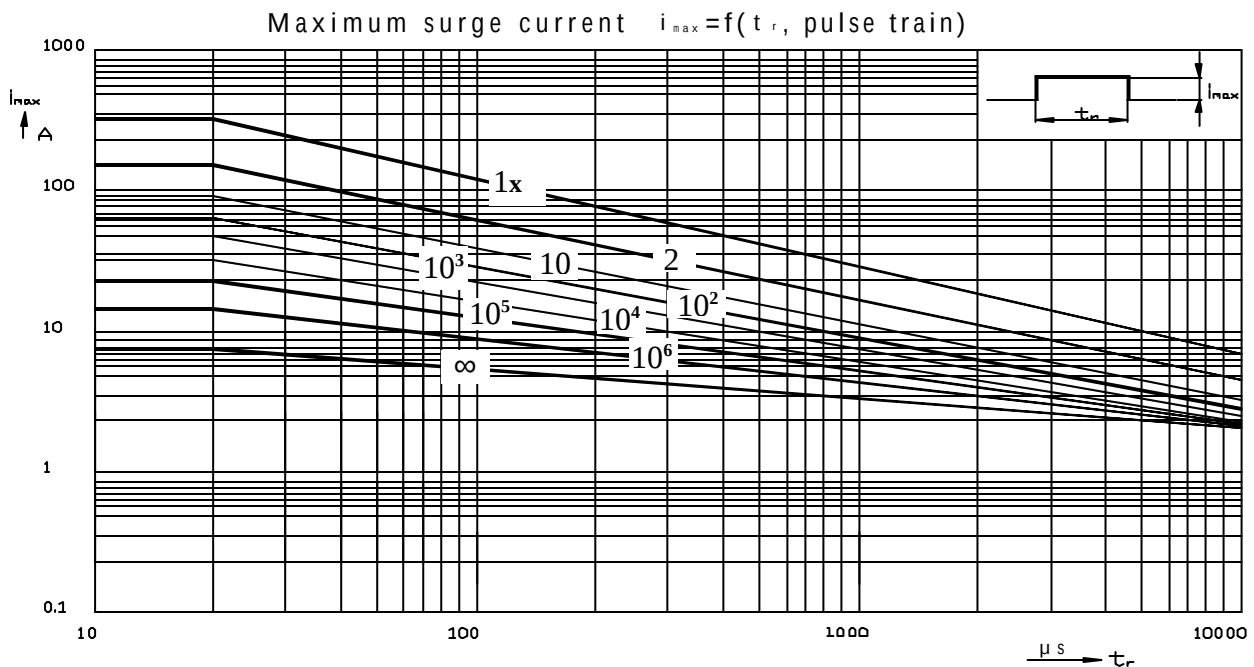


Maximum Surge Current: **JV1210ML121A**

TVS 1210 SMD

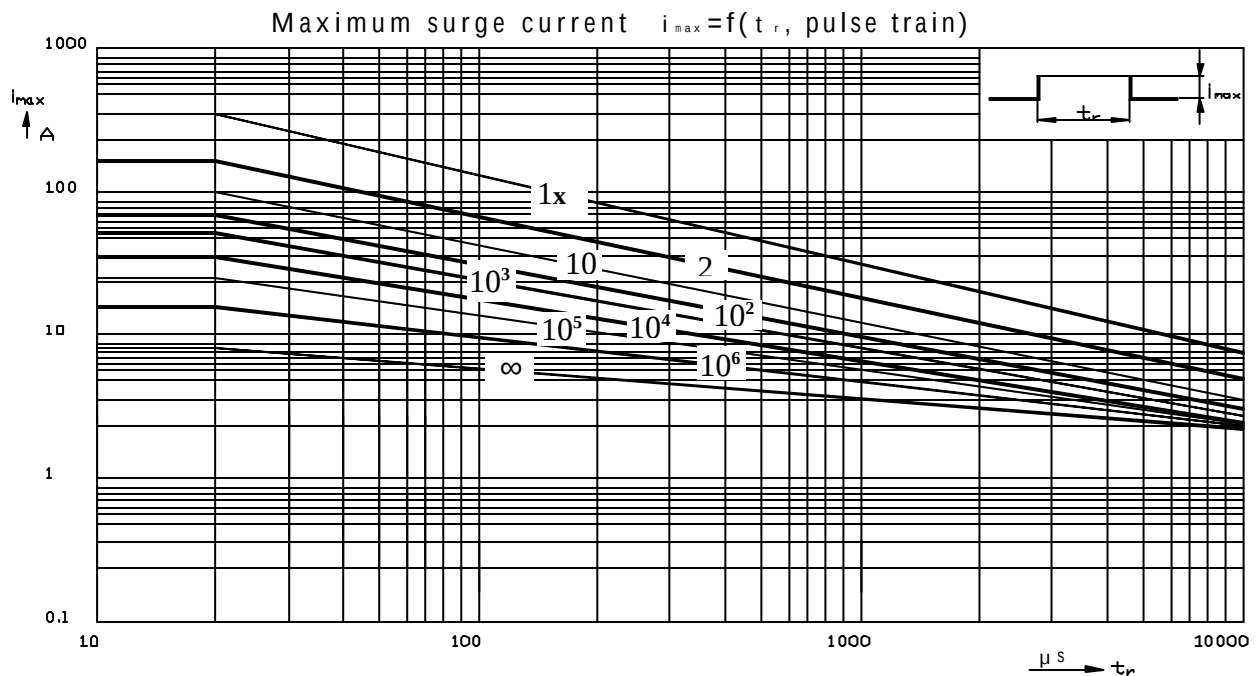


Maximum Surge Current: **JV1210ML380A- JV1210ML850A**

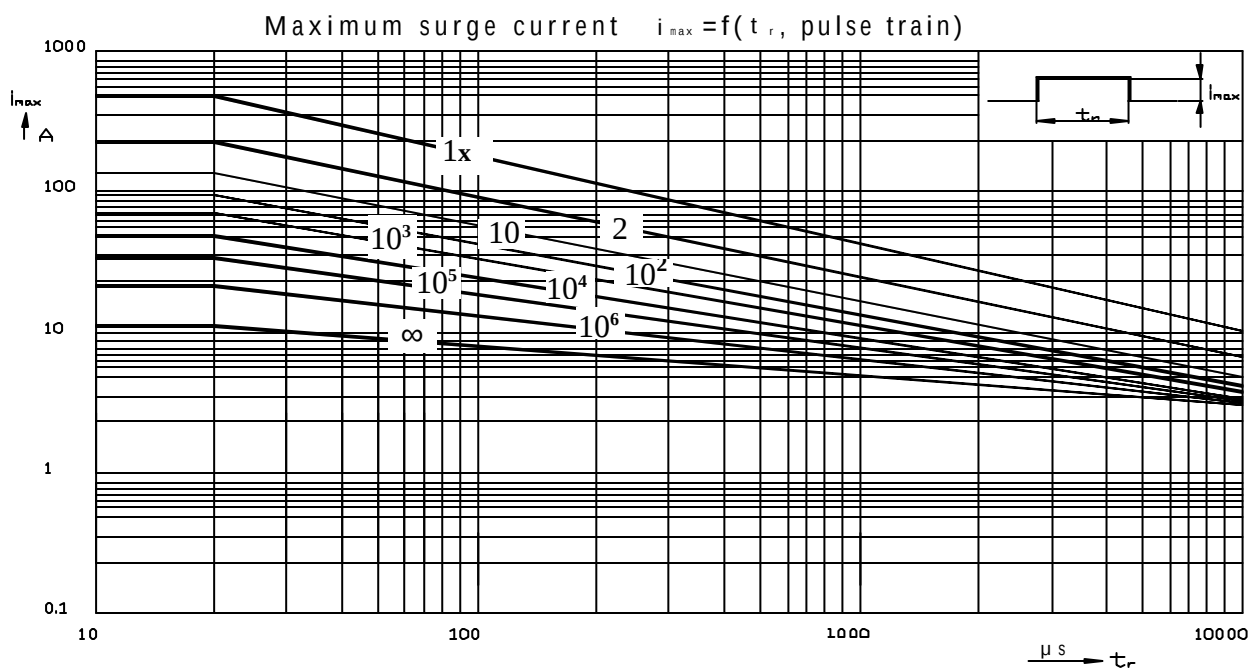


Maximum Surge Current: **JV1210ML300A**

TVS 1210 SMD



Maximum Surge Current: **JV1210ML220A- JV1210ML260A**

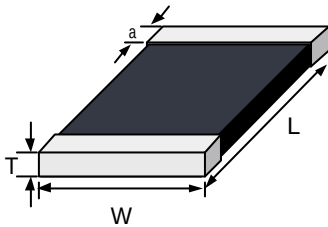


Maximum Surge Current: **JV1210ML180A**

TVS 1210 SMD



Dimensions



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
T	-	0.071	-	1.80
a	0.010	0.030	0.25	0.75
L	0.114	0.138	2.90	3.50
W	0.110	0.087	2.20	2.80

Multilayer Ceramic Transient Voltage Suppressor

Low Capacity

Features

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

Applications

Circuit board and ESD, EFT

Protection of:

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

Specifications

Packaging
 Tape and Reel
 T 7 inch reel (2.000 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 (α_V) of clamping voltage (V_C) @ specified test current
 <0.01%/°C

Power dissipation
 0.15W max.

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

Maximum Ratings (125°C)

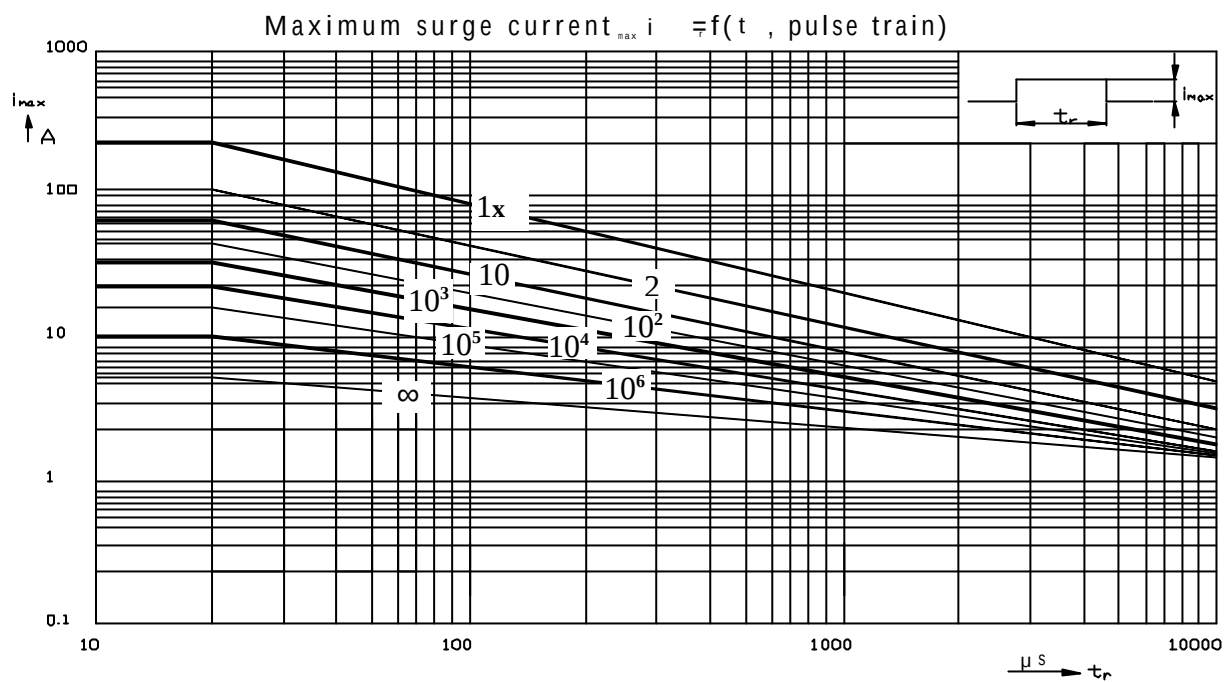
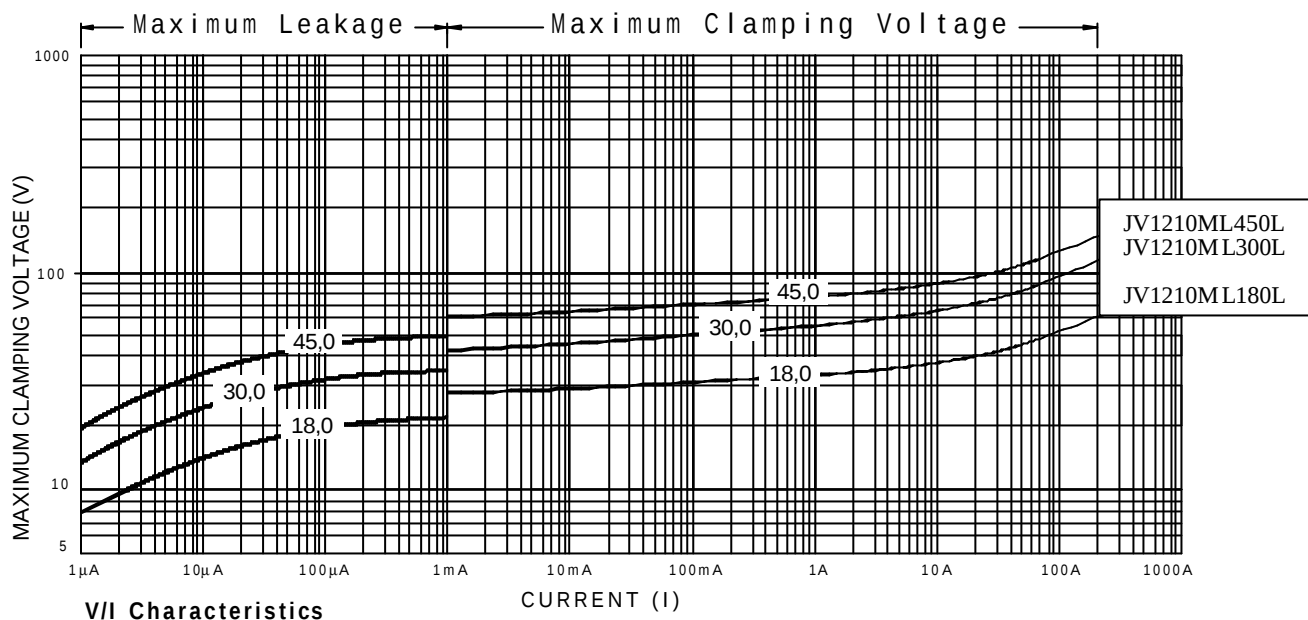
Type	max. cont. working voltage		max. non-repetitive surge current (8/20 μ s)	max. non-repetitive surge energy (10/1000 μ s)	max. clamping voltage at spec. current (8/20 μ s)	nominal voltage at 1mA (DC) test current		typ. capacitance		typ. inductance
	$V_{M(DC)}$ (V)	$V_{M(AC)}$ (V)	I_{TM} (A)	W_{TM} (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)
JV1210ML180L	18,0	14,0	200	1,50	38,0 @ 10	22,0	28,0	1900	1660	1,8
JV1210ML300L	30,0	25,0	200	0,90	65,0 @ 10	35,0	43,0	720	630	1,8
JV1210ML450L	45,0	35,0	220	0,90	90,0 @ 10	50,0	61,0	380	315	1,8

Order Information

Qty.	Order-Number	Type	Terminal Code	Packaging
		JV1210ML180	L	P
				T

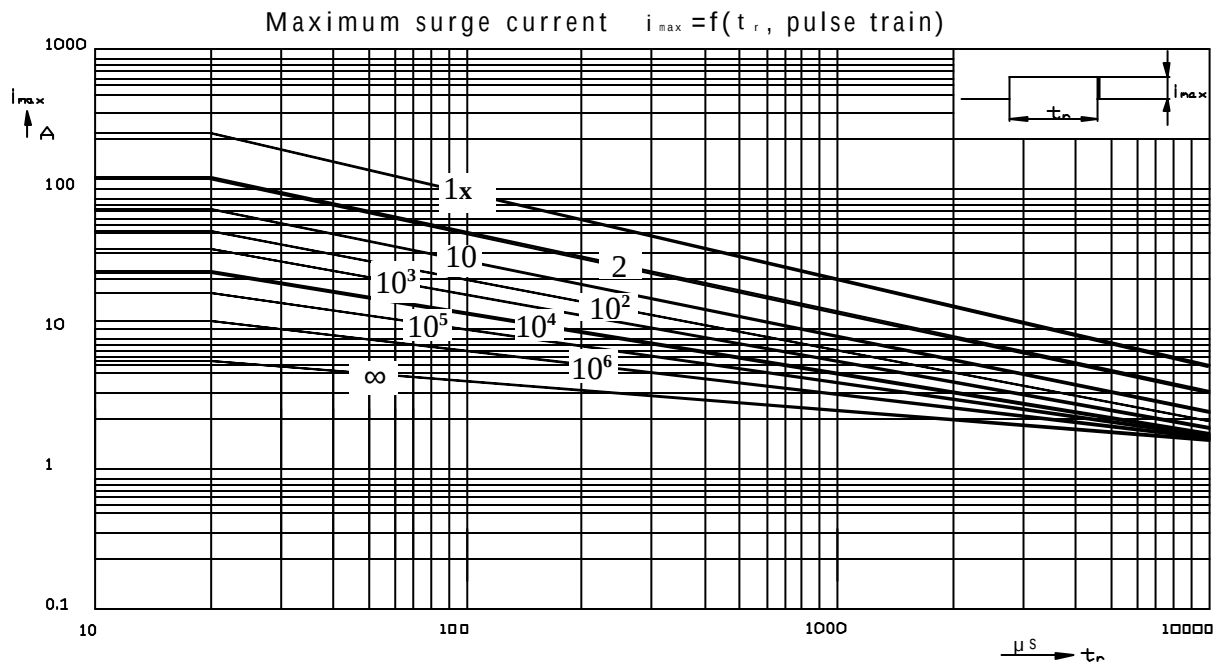
Specifications are subject to change without notice

TVS 1210 SMD



Maximum Surge Current: **JV1210ML180L- JV1210ML300L**

TVS 1210 SMD



Maximum Surge Current:

JV1210ML450L