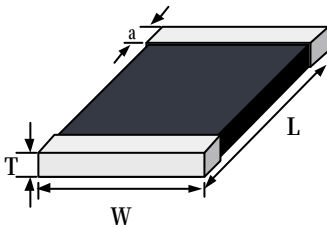


TVS 2220 SMD



Dimensions



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
T	-	0.118	-	3.00
a	0.020	0.039	0.50	1.00
L	0.209	0.240	5.30	6.10
W	0.181	0.213	4.60	5.40

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 (1.000 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

1.0W max.

Standards

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

Maximum Ratings (125°C)

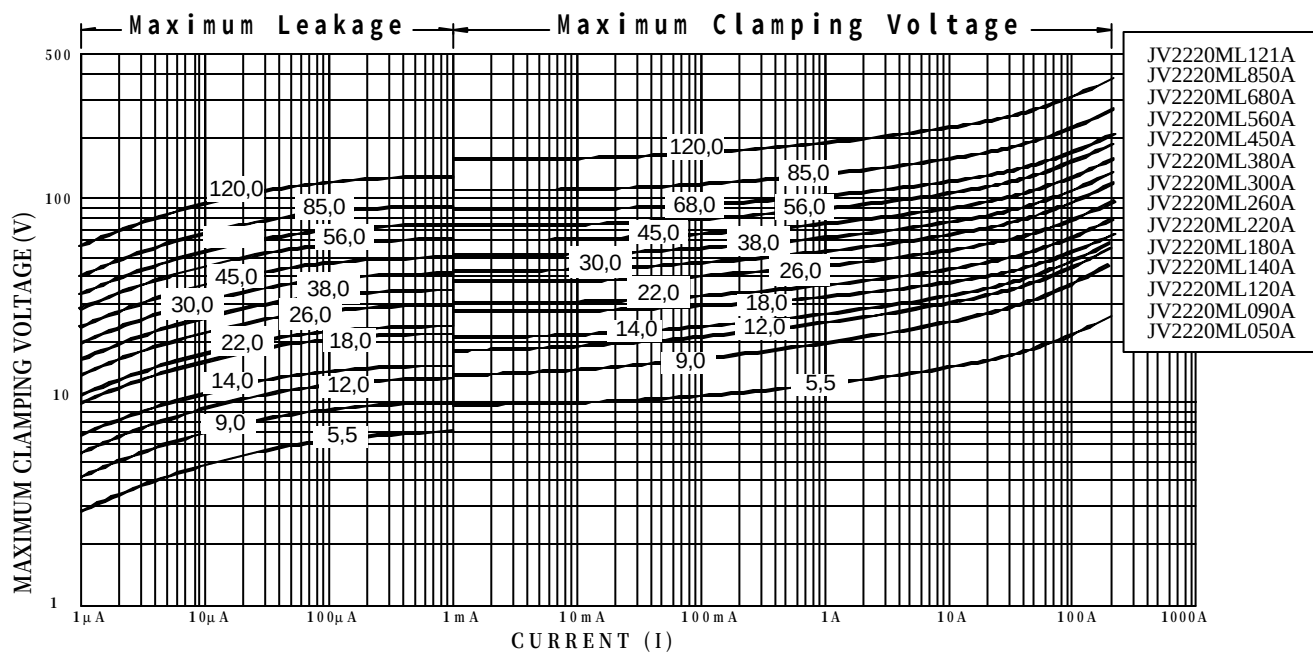
Type	max. cont. working voltage		max. non-repetitive surge current	max. non-repetitive surge energy	max. clamping voltage at spec. current	nominal voltage at 1mA (DC) test current		typ. capacitance		typ. inductance
			(8/20 μs)	(10/1000 μs)	(8/20 μs)			1KHz	1MHz	
	V _{M(DC)} (V)	V _{M(AC)} (V)	I _{TM} (A)	W _{TM} (J)	V _C (V@A)	V _{N(DC)min.} (V)	V _{N(DC)max.} (V)	C _{typ.} (pF)	C _{typ.} (pF)	L _{typ.} (nH)
JV2220ML050A	5,5	4,0	1000	1,4	15,5 @ 10	7,1	9,8	26000	22000	3,0
JV2220ML090A	9,0	6,0	1200	3,6	25,0 @ 10	10,0	14,5	19200	16000	3,0
JV2220ML120A	12,0	9,0	1200	4,2	30,0 @ 10	14,0	18,5	15930	13500	3,0
JV2220ML140A	14,0	11,0	1200	5,4	33,0 @ 10	16,0	21,0	11300	9500	3,0
JV2220ML180A	18,0	14,0	1200	5,8	38,0 @ 10	22,0	28,0	10200	8700	3,0
JV2220ML220A	22,0	17,0	1200	7,3	44,0 @ 10	24,3	30,0	9550	8000	3,0
JV2220ML260A	26,0	20,0	1200	7,8	54,0 @ 10	29,5	38,0	8380	7100	3,0
JV2220ML300A	30,0	25,0	1200	9,5	65,0 @ 10	35,0	43,0	4200	3500	3,0
JV2220ML380A	38,0	30,0	1200	12,0	77,0 @ 10	42,3	51,7	3540	3000	3,0
JV2220ML450A	45,0	35,0	1000	7,5	90,0 @ 10	50,0	61,0	3350	2900	3,0
JV2220ML560A	56,0	40,0	1000	9,0	110,0 @ 10	61,2	74,0	2240	1900	3,0
JV2220ML680A	68,0	50,0	800	5,5	135,0 @ 10	74,0	90,0	1900	1550	3,0
JV2220ML850A	85,0	60,0	800	6,8	165,0 @ 10	91,0	115,0	1100	930	3,0
JV2220ML121A	120,0	107,0	2000	10,0	230,0 @ 10	135,0	165,0	420	350	3,0

Order Information

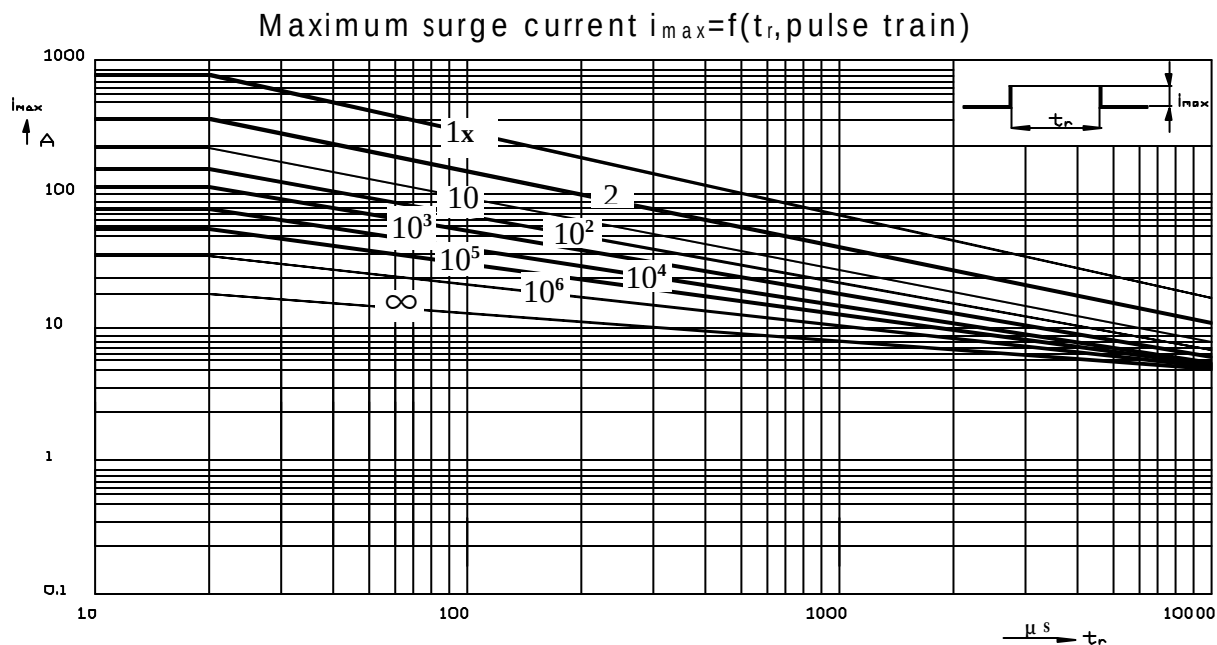
Qty.	Order-Number	Type	Terminal Code	Packaging
		JV2220ML260	A	P
				T

Specifications are subject to change without notice

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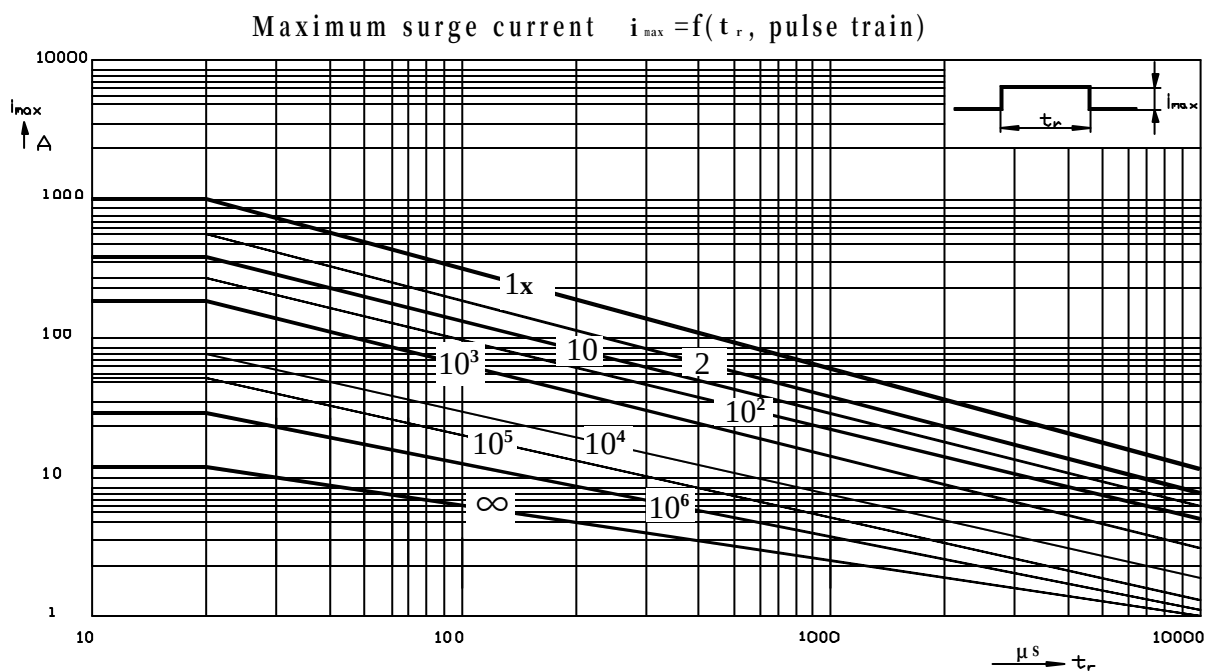


V/I Characteristics

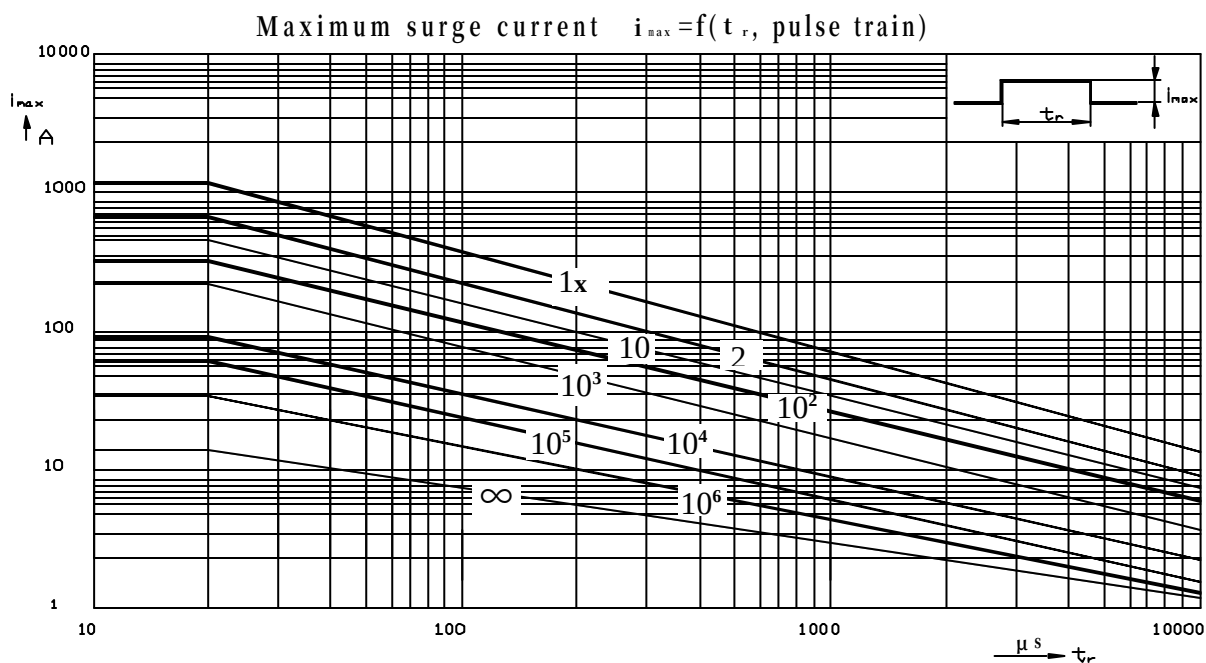


Maximum Surge Current: **JV2220ML680A- JV2220ML850A**

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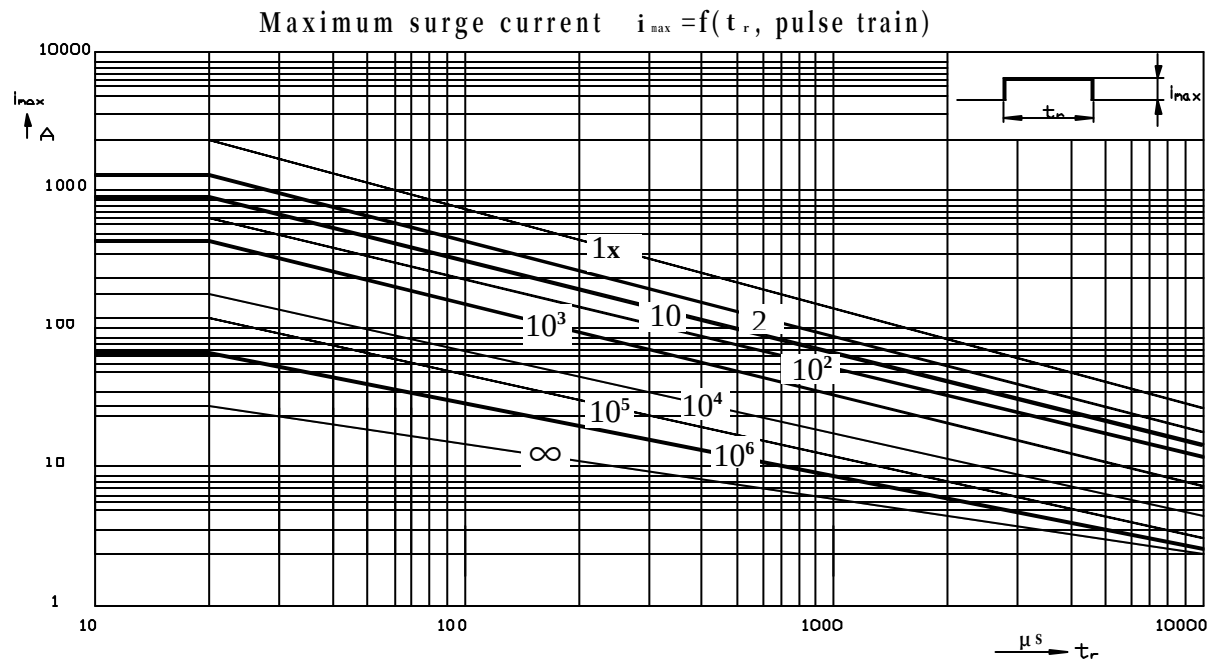


Maximum Surge Current: **JV2220ML050A, JV2220ML450A - JV1210ML560A**



Maximum Surge Current: **JV2220MT.090A - JV2220MT.380A**

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Maximum Surge Current: **JV2220ML121A**