

VARISTORS

WICKMANN

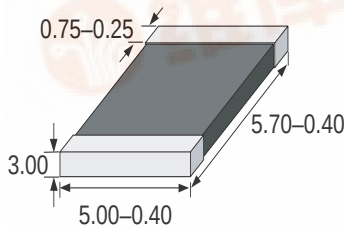


TVS 2220 SMD

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 info see:
www.wickmanngroup.com

Further technical info see technical varistor file:
www.wickmanngroup.com/download/techvaristor.pdf

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 (Vc) @ specified test current

<0.01%/°C

Power dissipation

1.0W max.

Standards

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

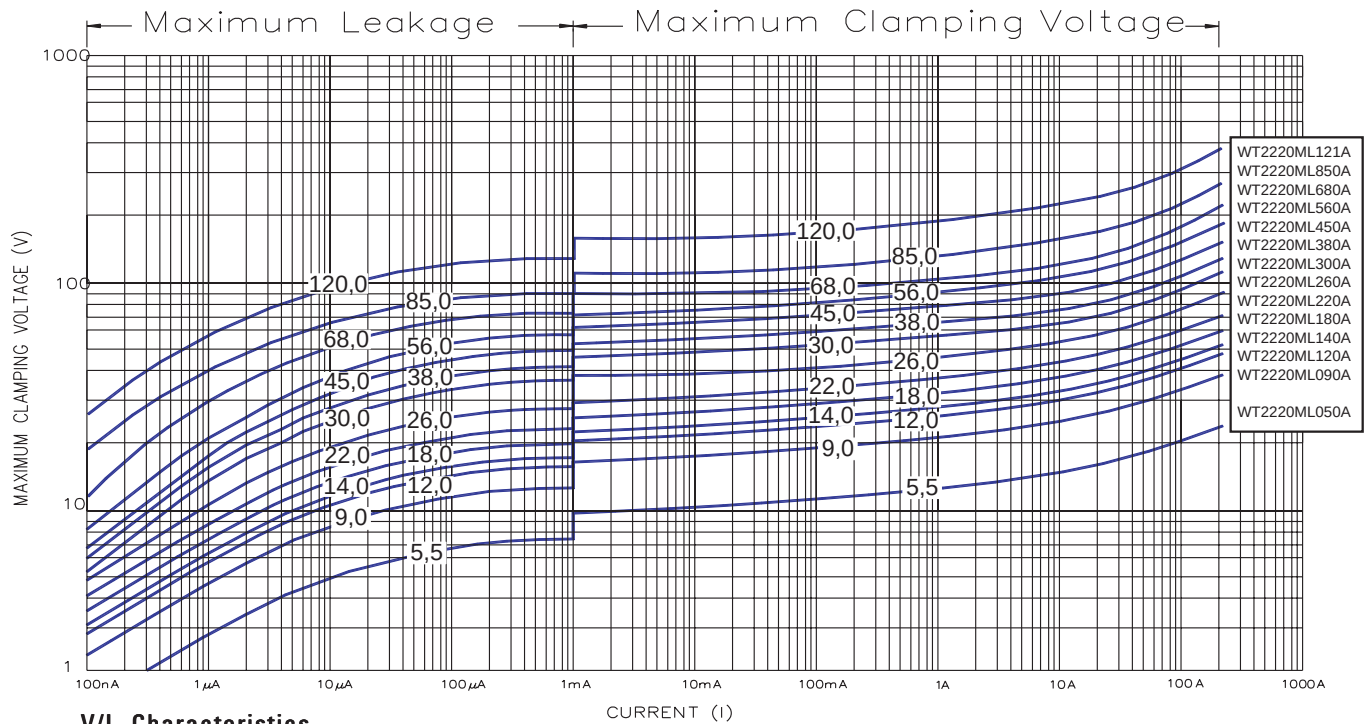
Maximum Ratings (125°C)						Specifications (25°C)				
Type	max. cont. working voltage		max. non-repetitive surge current (8/20 μs)	max. non-repetitive surge energy (10/1000 μs)	max. clamping voltage at spec. current (8/20 μs)	nominal voltage at 1mA (DC) test current		typ. capacitance		typ. inductance
	$V_{M(DC)}$ (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)
WT2220ML050A	5,5	4,0	1000	1,4	15,5 @ 10	7,1	9,8	26000	22000	3,0
WT2220ML090A	9,0	6,0	1200	3,6	25,0 @ 10	10,0	14,5	19200	16000	3,0
WT2220ML120A	12,0	9,0	1200	4,2	30,0 @ 10	14,0	18,5	15930	13500	3,0
WT2220ML140A	14,0	11,0	1200	5,4	33,0 @ 10	16,0	21,0	11300	9500	3,0
WT2220ML180A	18,0	14,0	1200	5,8	38,0 @ 10	22,0	28,0	10200	8700	3,0
WT2220ML220A	22,0	17,0	1200	7,3	44,0 @ 10	24,3	30,0	9550	8000	3,0
WT2220ML260A	26,0	20,0	1200	7,8	54,0 @ 10	29,5	38,0	8380	7100	3,0
WT2220ML300A	30,0	25,0	1200	9,5	65,0 @ 10	35,0	43,0	4200	3500	3,0
WT2220ML380A	38,0	30,0	1200	12,0	77,0 @ 10	42,3	51,7	3540	3000	3,0
WT2220ML450A	45,0	35,0	1000	7,5	90,0 @ 10	50,0	61,0	3350	2900	3,0
WT2220ML560A	56,0	40,0	1000	9,0	110,0 @ 10	61,2	74,0	2240	1900	3,0
WT2220ML680A	68,0	50,0	800	5,5	135,0 @ 10	74,0	90,0	1900	1550	3,0
WT2220ML850A	85,0	60,0	600	6,8	165,0 @ 10	91,0	115,0	1100	930	3,0
WT2220ML121A	120,0	107,0	1100	10,0	230,0 @ 10	135,0	165,0	420	350	3,0



Qty.	Order-Number	Type	Terminal Code	Packaging
		WT2220ML260	A	P
				T

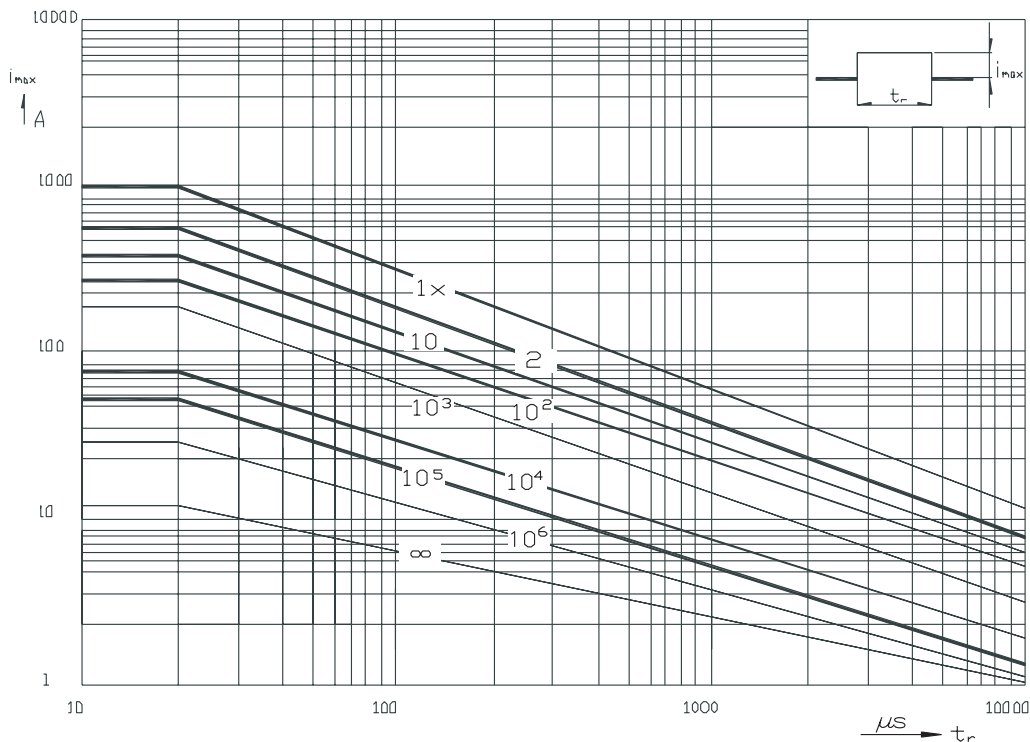
Specifications are subject to change without notice

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V/I Characteristics

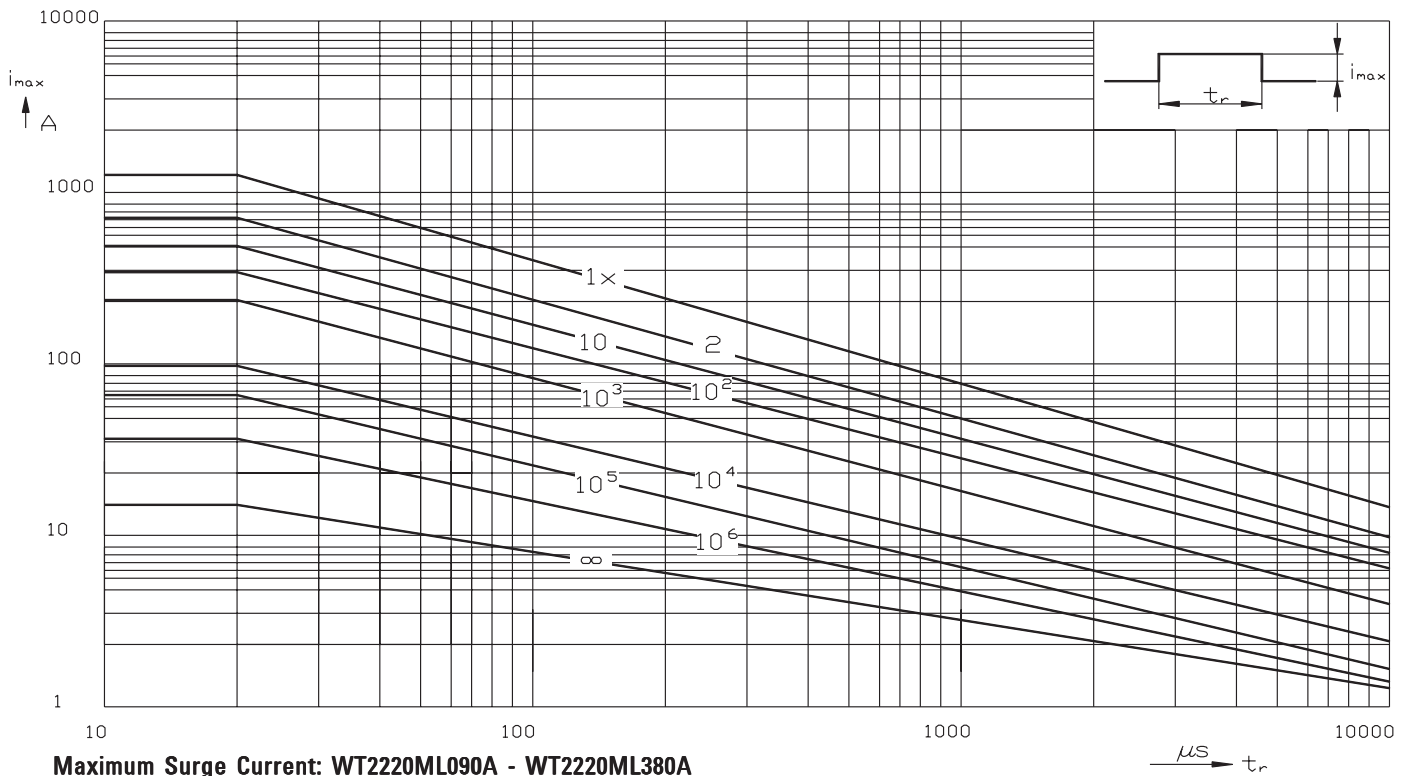
Maximum surge current $i_{max} = f(t_r, \text{pulse train})$



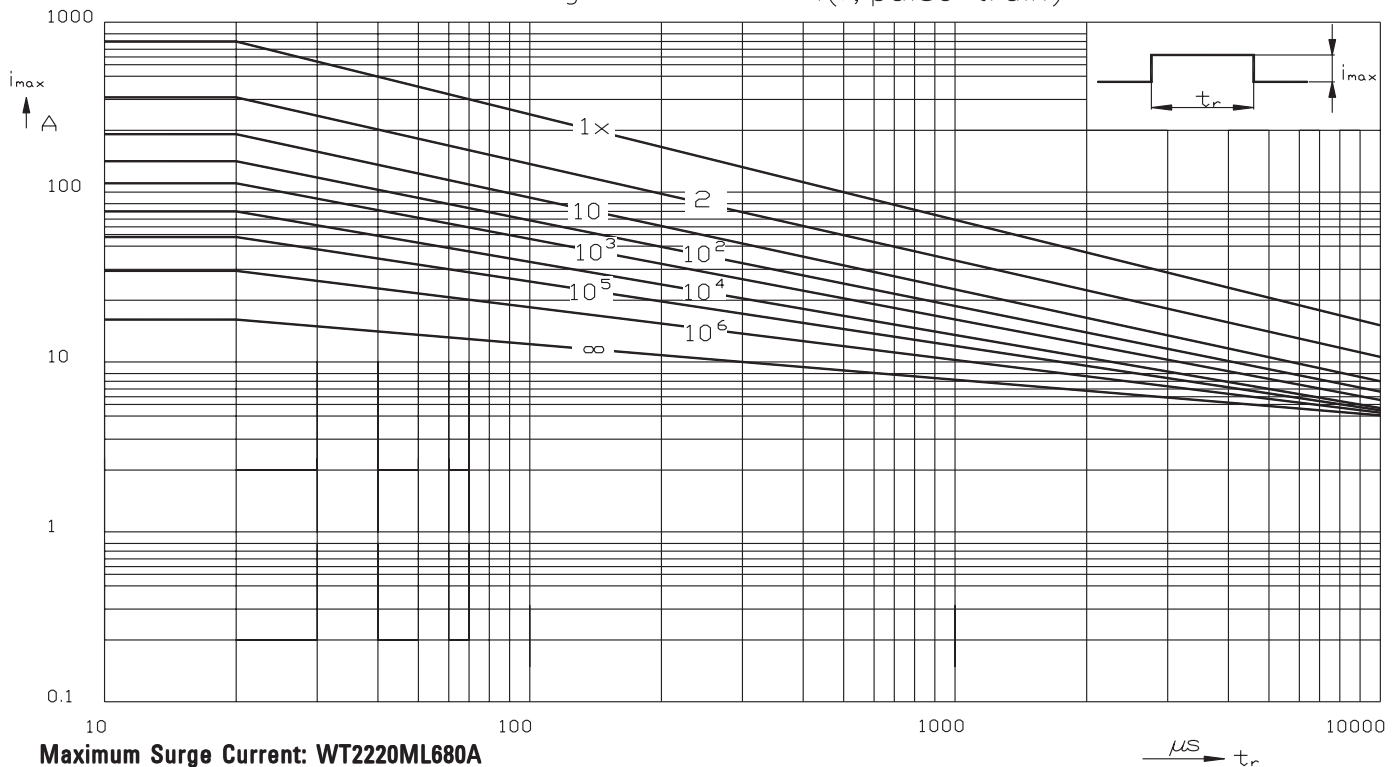
Maximum Surge Current: WT2220ML050A, WT2220ML450A - WT2220ML560A

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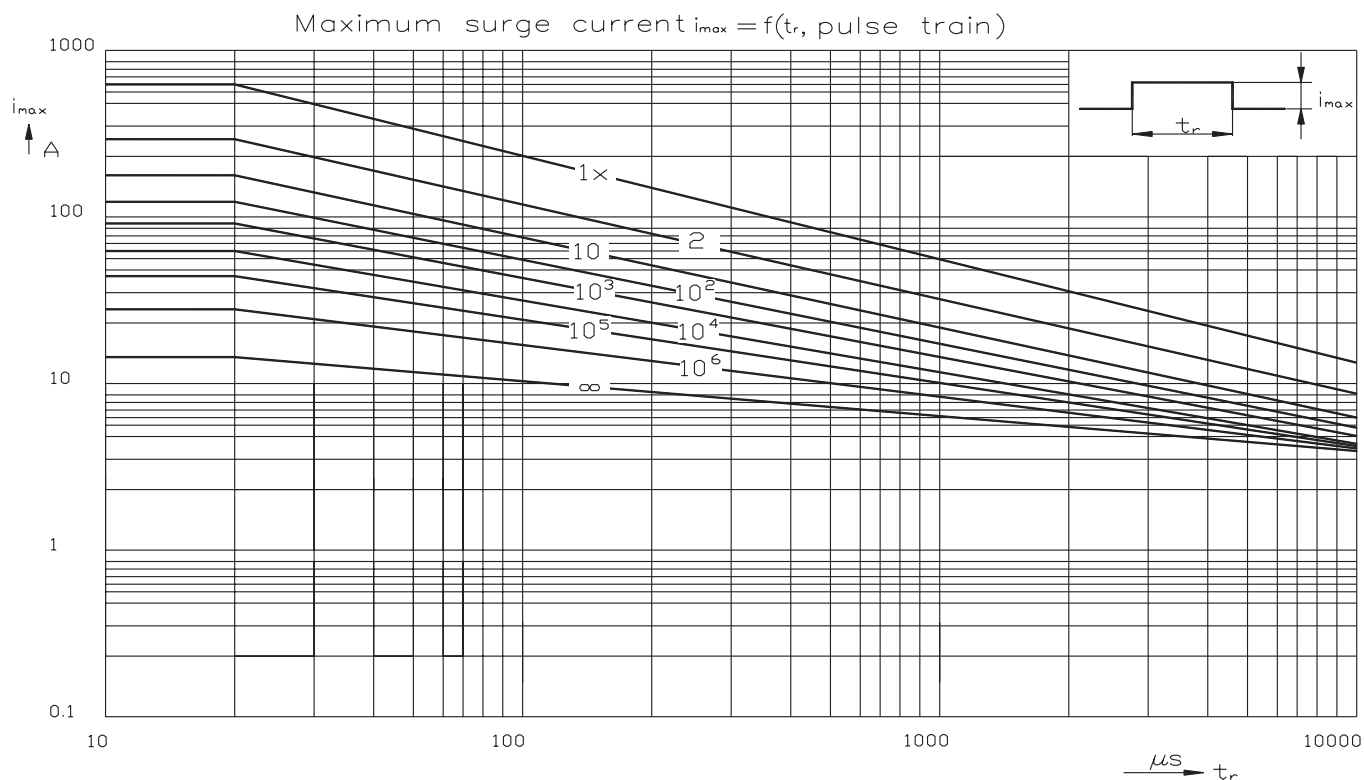
Maximum surge current $i_{max} = f(t_r, \text{pulse train})$



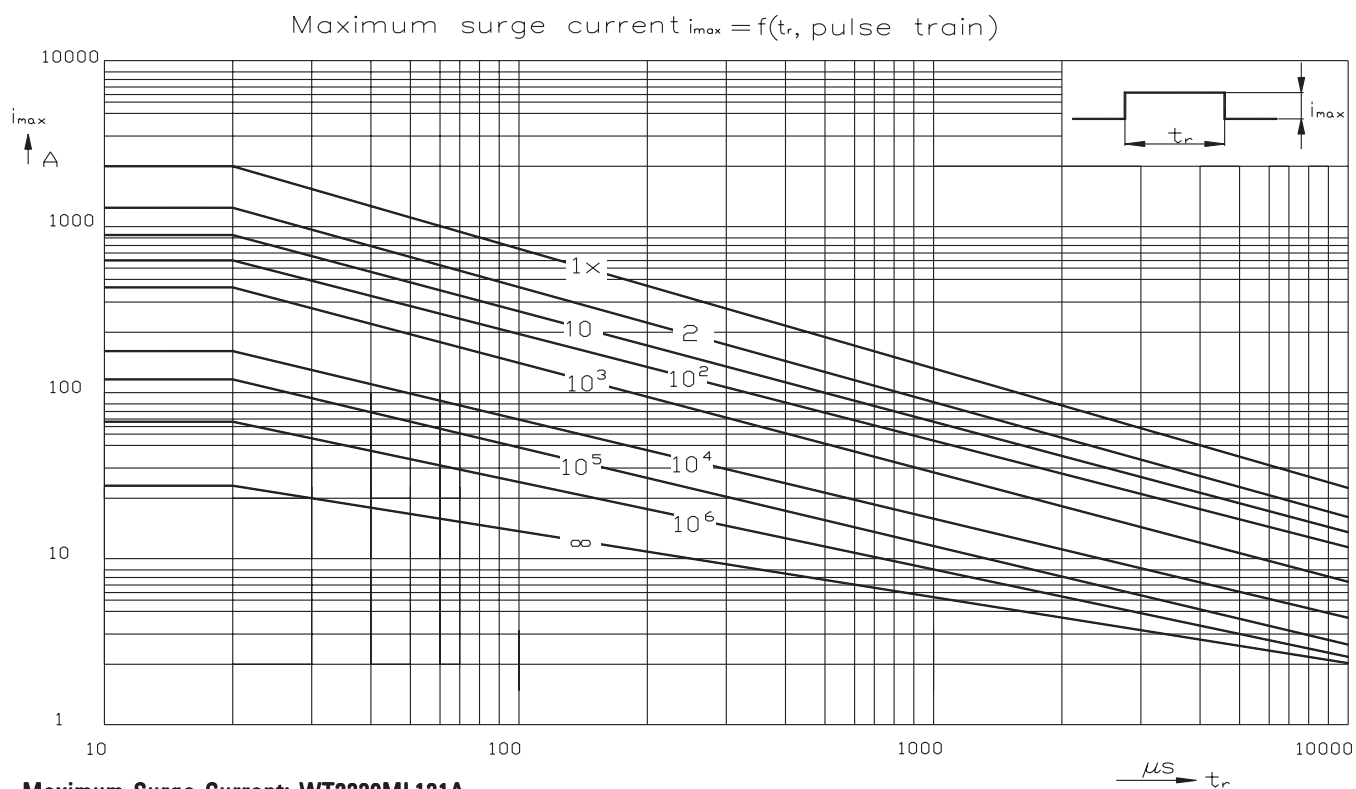
Maximum surge current $i_{max} = f(t_r, \text{pulse train})$



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Maximum Surge Current: WT2220ML850A



Maximum Surge Current: WT2220ML121A