

TVS 0805 SMD

Multilayer Ceramic Transient Voltage Suppressor Standard Capacity

Specifications



Packaging
Tape and Reel
T 7 inch reel (3.000 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

Protection of:

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

Response Time

<0.5ns

Temperature coefficient (αV) of clamping voltage (V_C) @ specified test current

<0.01%/°C

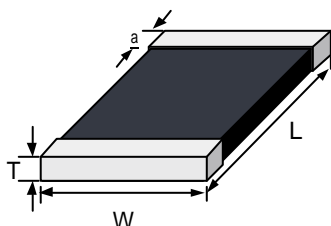
Power dissipation

0.1W max.

Standards

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

Dimensions



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
T	-	0.047	-	1.20
a	0.006	0.026	0.15	0.65
L	0.071	0.087	1.80	2.20
W	0.043	0.055	1.10	1.40

Maximum Ratings (125°C)

Specifications (25°C)

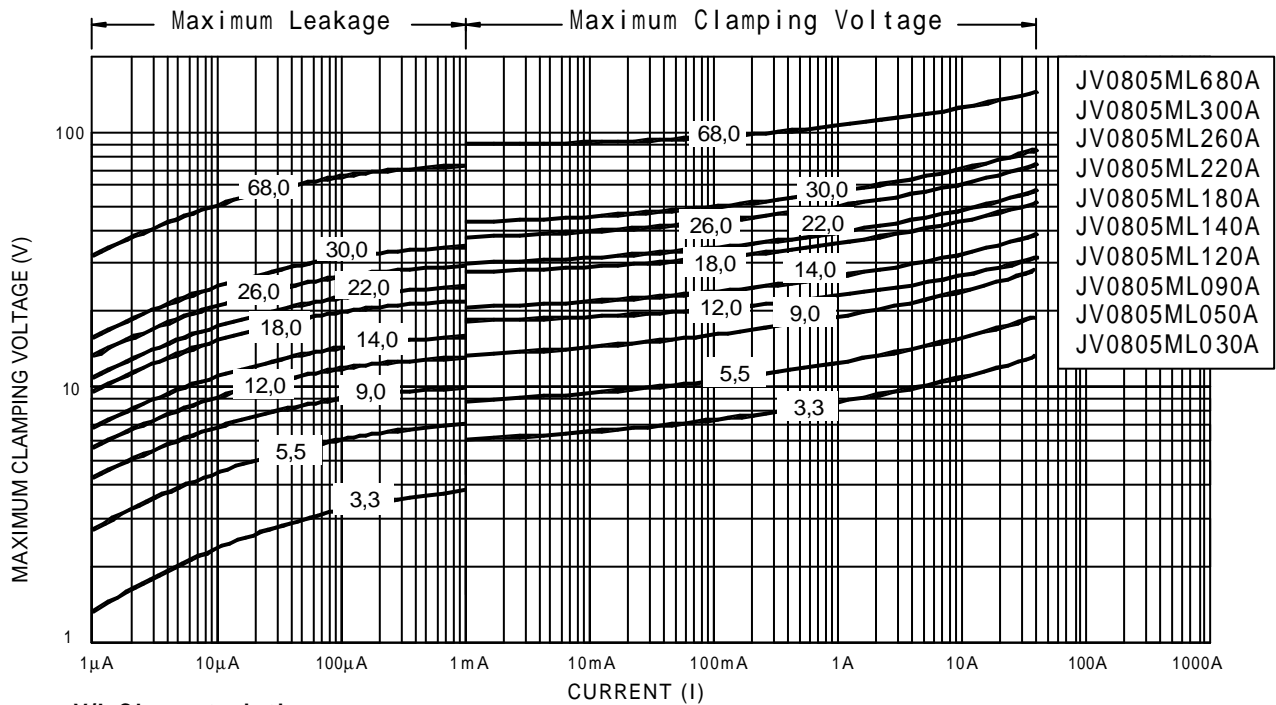
Type	max. cont. working voltage		max. non-repetitive surge current (8/20 μ s)	max. non-repetitive surge energy (10/1000 μ s)	max. clamping voltage at spec. current (8/20 μ s)	nominal voltage at 1mA (DC) test current		typ. capacitance		typ. inductance
	$V_{M(DC)}$ (V)	$V_{M(AC)}$ (V)	I_{TM} (A)	W_{TM} (J)	V_C (V@A)	$V_{N(DC)min.}$ (V)	$V_{N(DC)max.}$ (V)	C _{typ.} (pF) 1KHz	C _{typ.} (pF) 1MHz	L _{typ.} (nH)
JV0805ML030A	3,3	2,5	60	0,30	10,0 @ 5	3,8	7,0	4200	4000	1,5
JV0805ML050A	5,5	4,0	100	0,30	15,5 @ 5	7,1	9,8	1950	1700	1,5
JV0805ML090A	9,0	6,0	120	0,30	23,0 @ 5	10,0	14,5	1580	1340	1,5
JV0805ML120A	12,0	9,0	120	0,30	25,0 @ 5	14,0	18,5	1110	950	1,5
JV0805ML140A	14,0	11,0	120	0,30	30,0 @ 5	16,0	21,0	1230	1050	1,5
JV0805ML180A	18,0	14,0	120	0,30	40,0 @ 5	22,0	28,0	760	690	1,5
JV0805ML220A	22,0	17,0	120	0,30	44,0 @ 5	24,3	30,0	735	620	1,5
JV0805ML260A	26,0	20,0	120	0,30	58,0 @ 5	29,5	38,0	460	420	1,5
JV0805ML300A	30,0	25,0	100	0,30	65,0 @ 5	35,0	43,0	330	290	1,5
JV0805ML680A	68,0	50,0	80	0,30	135,0 @ 5	74,0	90,0	95	85	1,5

Order Information

Qty.	Order-Number	Type	Terminal Code	Packaging
		JV 0805ML180	A	P
				T

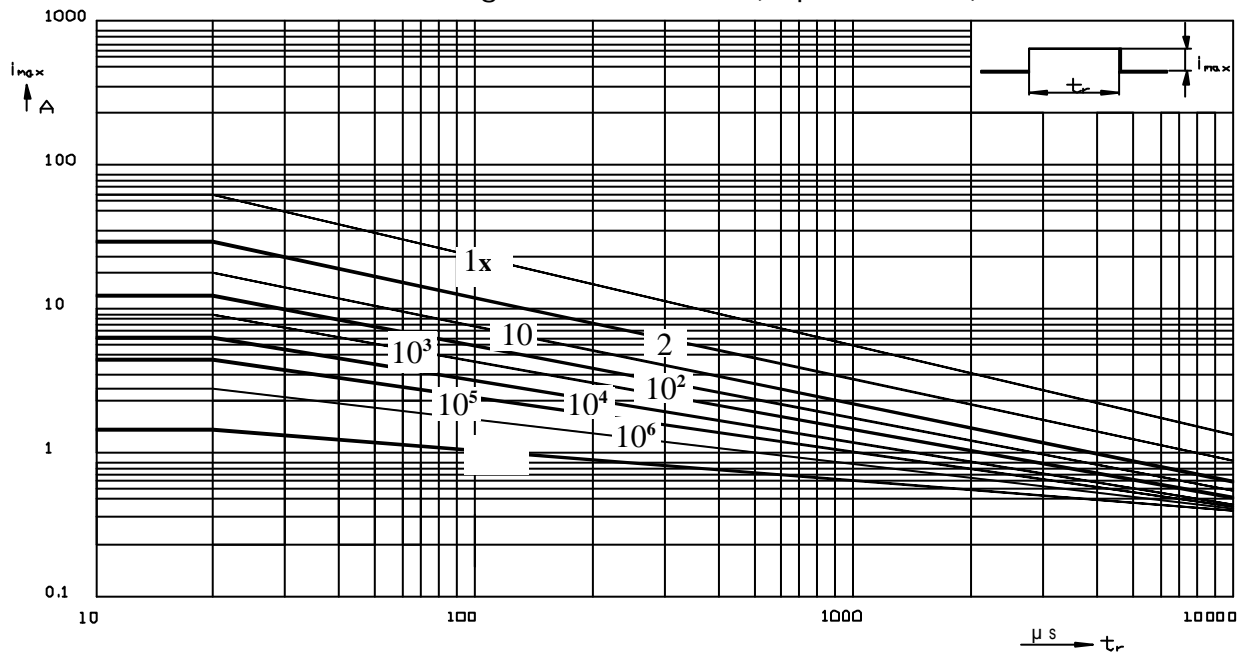
Specifications are subject to change without notice

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V/I Characteristics

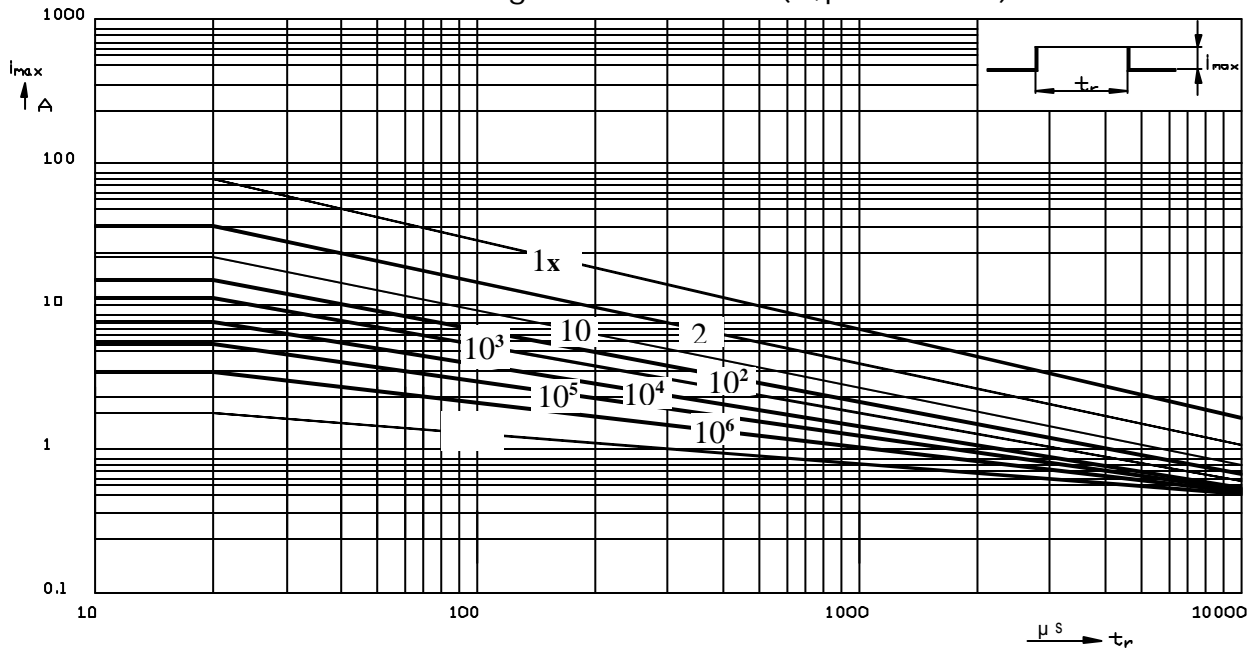
Maximum surge current $i_{max}=f(t_r, \text{pulse train})$



Maximum Surge Current: **JV0805ML030A**

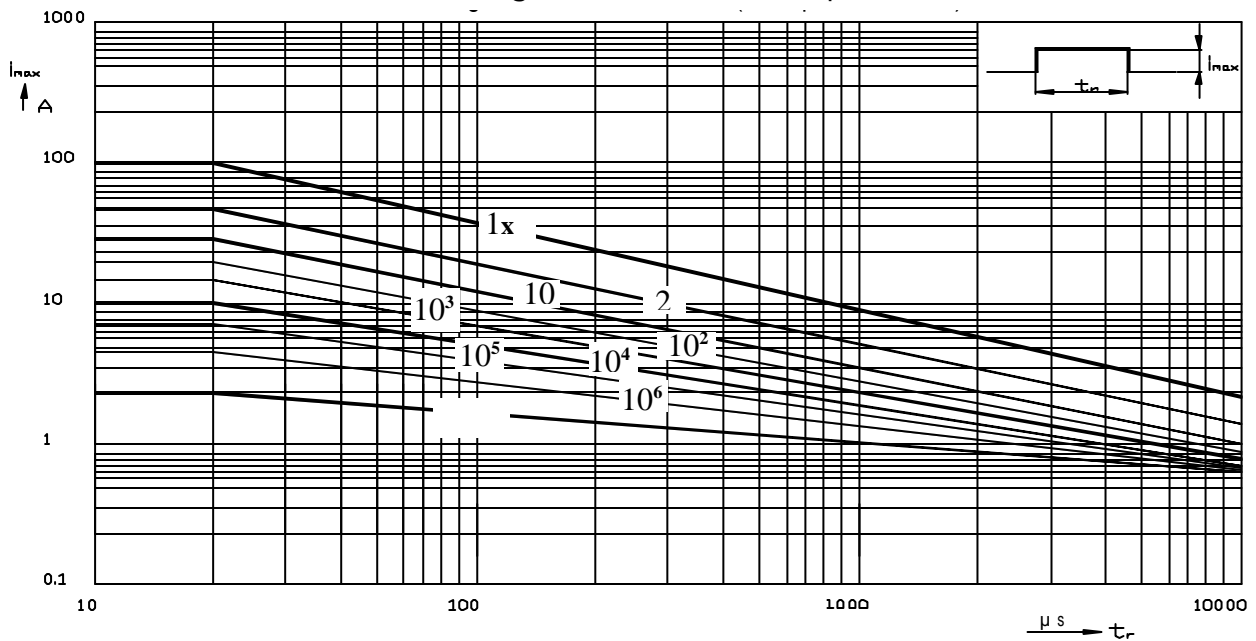
TVS 0805 SMD

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



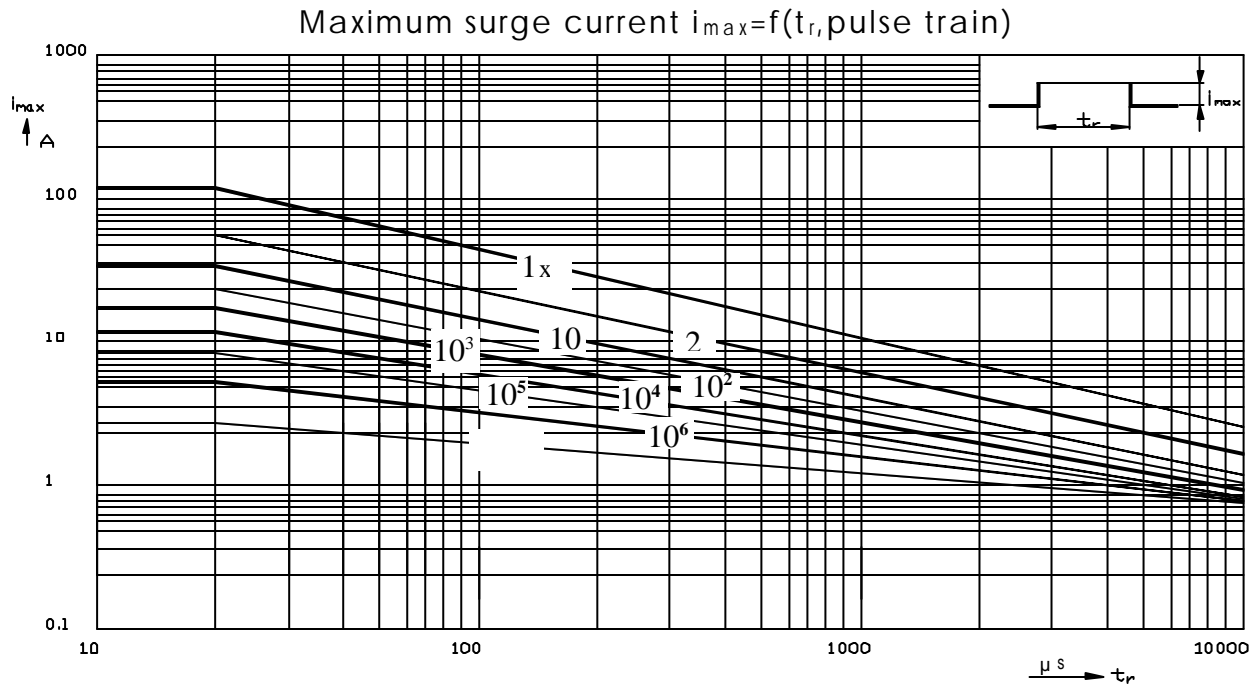
Maximum Surge Current: **JV0805ML680A**

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



Maximum Surge Current: **JV0805ML050A, JV0805ML300A**

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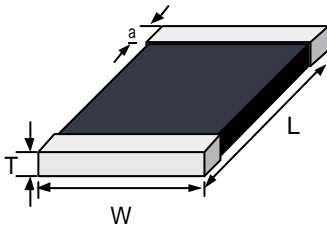


Maximum Surge Current: **JV0805ML090A - JV0805ML260A**

TVS 0805SMD



Dimensions



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
T	-	0.047	-	1.20
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L	0.071	0.087	1.80	2.20
W	0.043	0.055	1.10	1.40

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Terminals: Ni/Sn plated (code "P")
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-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
0.1W max.
- Standards
IEC 61000-4-2
MIL-STD-883C

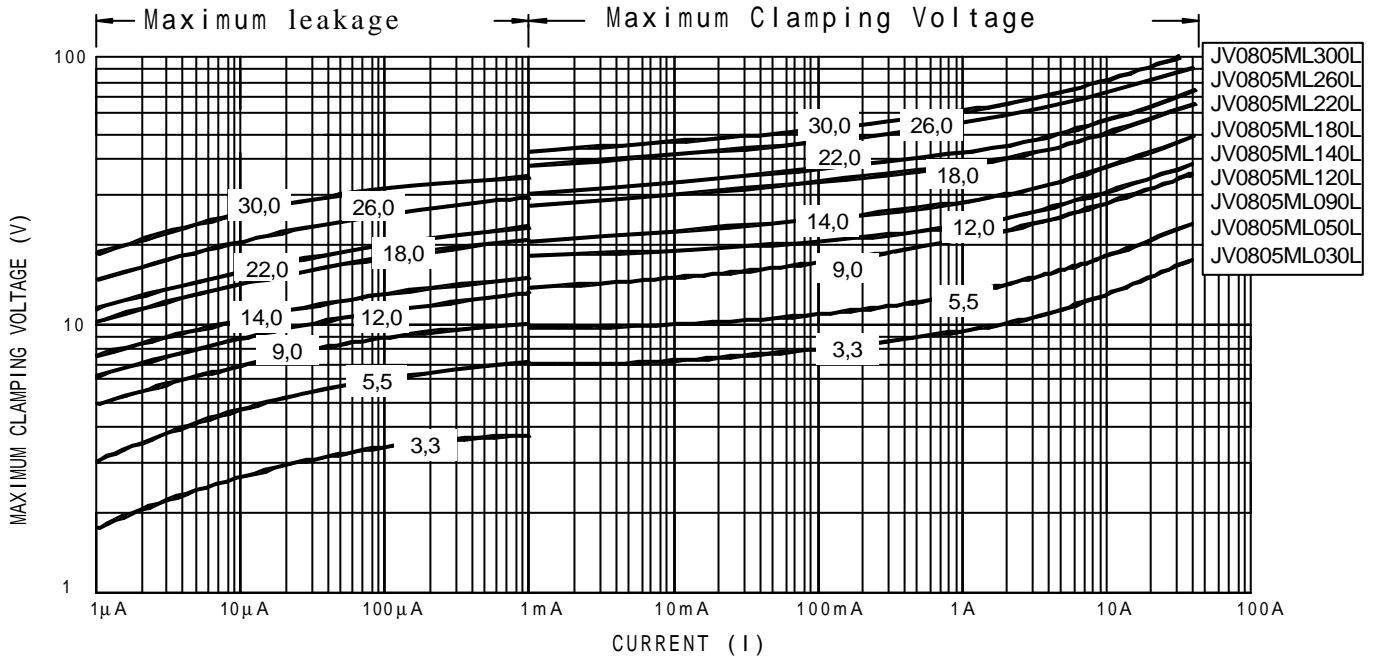
Type	Maximum Ratings (125°C)					Specifications (25°C)				
	max. cont. working voltage		max. non-repetitive surge current (8/20 μ s)	max. non-repetitive surge energy (10/1000 μ s)	max. clamping voltage at spec. current (8/20 μ s)	nominal voltage at 1mA (DC) test current		typ. capacitance		typ. inductance
	$V_{M(DC)}$ (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)
JV0805ML030L	3,3	2,5	40	0,10	10,0 @ 2	3,8	7,0	2080	1900	1,5
JV0805ML050L	5,5	4,0	40	0,10	15,5 @ 2	7,1	9,8	790	720	1,5
JV0805ML090L	9,0	6,0	40	0,10	23,0 @ 2	10,0	14,5	650	550	1,5
JV0805ML120L	12,0	9,0	40	0,10	25,0 @ 2	14,0	18,5	560	480	1,5
JV0805ML140L	14,0	11,0	40	0,10	30,0 @ 2	16,0	21,0	445	380	1,5
JV0805ML180L	18,0	14,0	40	0,10	40,0 @ 2	22,0	28,0	330	290	1,5
JV0805ML220L	22,0	17,0	40	0,10	44,0 @ 2	24,3	30,0	320	280	1,5
JV0805ML260L	26,0	20,0	40	0,10	58,0 @ 2	29,5	38,0	330	285	1,5
JV0805ML300L	30,0	25,0	40	0,10	65,0 @ 2	35,0	43,0	220	190	1,5

Order Information

Qty.	Order-Number	Type	Terminal Code	Packaging
		JV 0805ML140	L	P
			P	T

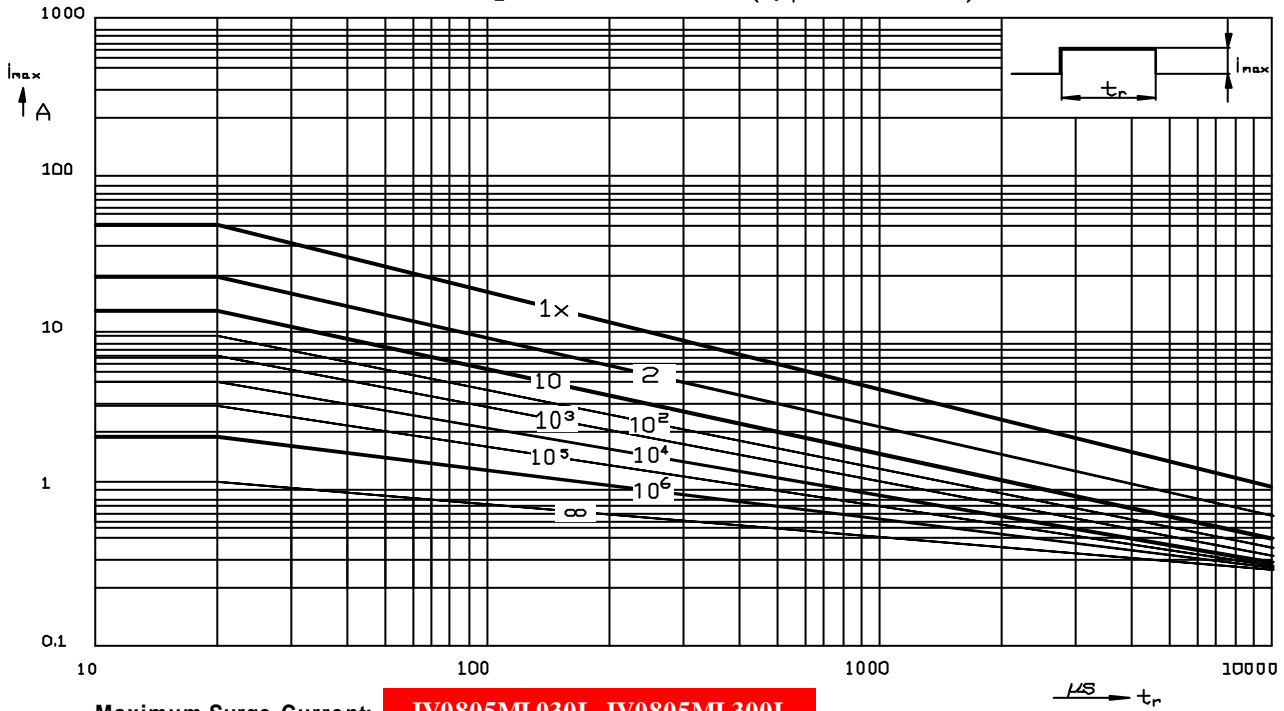
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V/I Characteristics

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



Maximum Surge Current: **JV0805MT 030L - JV0805MT 300L**