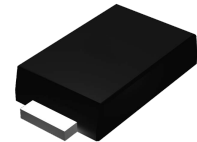


L4TVS10A thru L4TVS64A

Surface Mount Transient Voltage Suppressors
Peak Pulse Power 400W Stand-off Voltage 10V to 64V

Features

- Glass passivated junction
- Excellent clamping capability and Fast response time
- 400W peak pulse power capability with a 10/1000us waveform
- Moisture sensitivity: level 1, per J-STD-020
- Solder dip 260 °C, 10s
- Low profile, typical thickness 1.0mm



SMAF

Applications

For use in sensitive electronics protection against voltage transients induced by lightning or inductive load switching. Key applications include protection of I/O interfaces, industrial and LED lighting applications, DC power buses, and other vulnerable circuits used in consumer electronics.

Maximum Ratings and Thermal Characteristics

(T_A = 25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Power Dissipation With a 10/1000us Waveform	P _{PPM} ¹	Minimum 400	W
Peak Pulse Current With a 10/1000us Waveform	I _{PPM} ¹	See Next Table	A
Steady State Power Dissipation	P _{M(AV)} ²	1	W
Peak Forward surge Current, 8.3ms Single Half Sine-Wave	I _{FSM}	40.0	A
Maximum Instantaneous Forward Voltage at 25A	V _F	2.0	V
Thermal Resistance Junction To Ambient Air	R _{thja} ³	85	°C/W
Operating Junction and Storage Temperature Range	T _J , T _{STG}	-65 to +150	°C

Notes:

- 1) Non-repetitive current, per fig.3 and derated above T_A=25°C per fig.4.
- 2) Power dissipation mounted on recommended pad layout.
- 3) Thermal resistance from junction to ambient, mounted on PCB with 8.0×8.0mm copper pads.

L4TVS10A thru L4TVS64A

Surface Mount Transient Voltage Suppressors
Peak Pulse Power 400W Stand-off Voltage 10V to 64V

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Part Number	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Max Reverse Leakage Current	Max. Clamp Voltage	Peak Pulse Current
	VRWM	VBR @ IT		IT	IR @ VRWM	Vc @ IPP	IPP
		Min	Max				
	V	V	V	mA	μA	V	A
L4TVS10A	10	11.1	12.3	1	2.5	17	23.5
L4TVS11A	11	12.2	13.5	1	2.5	18.2	22
L4TVS12A	12	13.3	14.7	1	2.5	19.9	20.1
L4TVS13A	13	14.4	15.9	1	0.1	21.5	18.6
L4TVS14A	14	15.6	17.2	1	0.1	23.2	17.2
L4TVS15A	15	16.7	18.5	1	0.1	24.4	16.4
L4TVS16A	16	17.8	19.7	1	0.1	26	15.4
L4TVS17A	17	18.9	20.9	1	0.1	27.6	14.5
L4TVS18A	18	20	22.1	1	0.1	29.2	13.7
L4TVS20A	20	22.2	24.5	1	0.1	32.4	12.3
L4TVS22A	22	24.4	26.9	1	0.1	35.5	11.3
L4TVS24A	24	26.7	29.5	1	0.1	38.9	10.3
L4TVS26A	26	28.9	31.9	1	0.1	42.1	9.5
L4TVS28A	28	31.1	34.4	1	0.1	45.4	8.8
L4TVS30A	30	33.3	36.8	1	0.1	48.4	8.3
L4TVS33A	33	36.7	40.6	1	0.1	53.3	7.5
L4TVS36A	36	40	44.2	1	0.1	58.1	6.9
L4TVS40A	40	44.4	49.1	1	0.1	64.5	6.2
L4TVS43A	43	47.8	52.8	1	0.1	69.4	5.8
L4TVS45A	45	50	55.3	1	0.1	72.7	5.5
L4TVS48A	48	53.3	58.9	1	0.1	77.4	5.2
L4TVS51A	51	56.7	62.7	1	0.1	82.4	4.9
L4TVS54A	54	60	66.3	1	0.1	87.1	4.6
L4TVS58A	58	64.4	71.2	1	0.1	93.6	4.3
L4TVS60A	60	66.7	73.7	1	0.1	96.8	4.1
L4TVS64A	64	71.1	78.6	1	0.1	103	3.9

L4TVS10A thru L4TVS64A

Surface Mount Transient Voltage Suppressors
Peak Pulse Power 400W Stand-off Voltage 10V to 64V

Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)

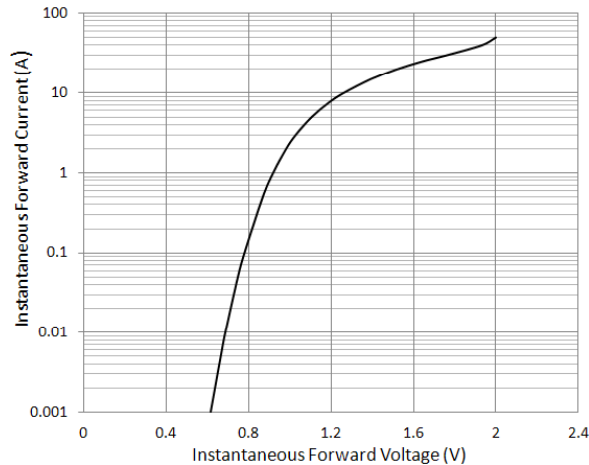


Figure 1. Typical Instantaneous Forward Characteristics

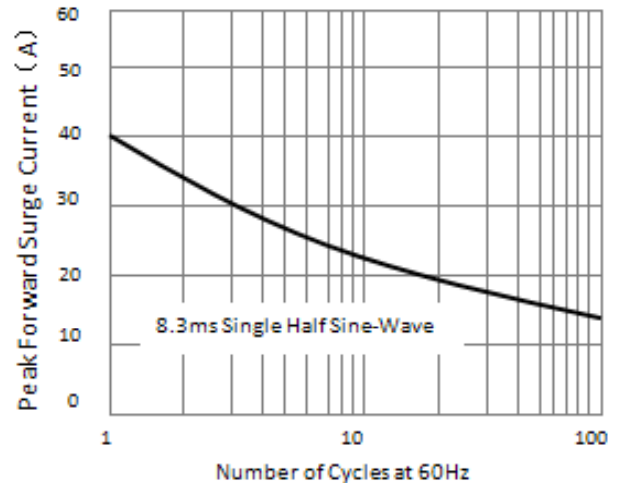


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

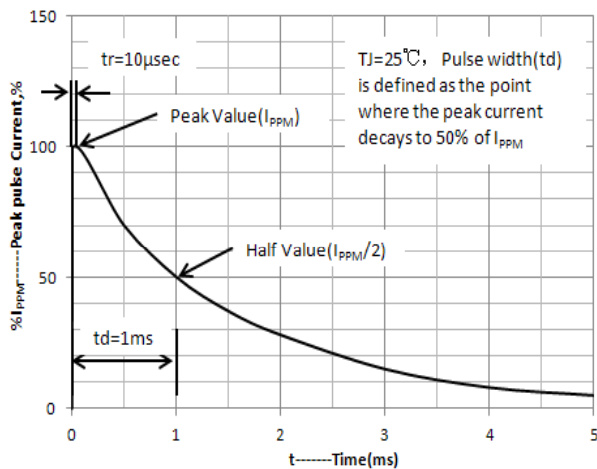


Figure 3. Pulse Waveform

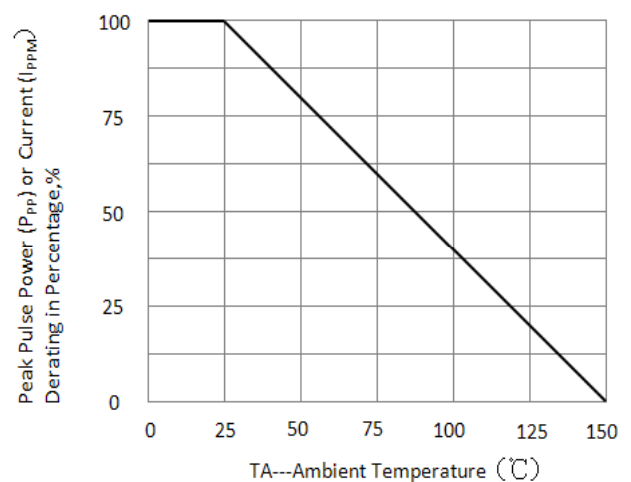


Figure 4. Peak Pulse Power Derating Curve

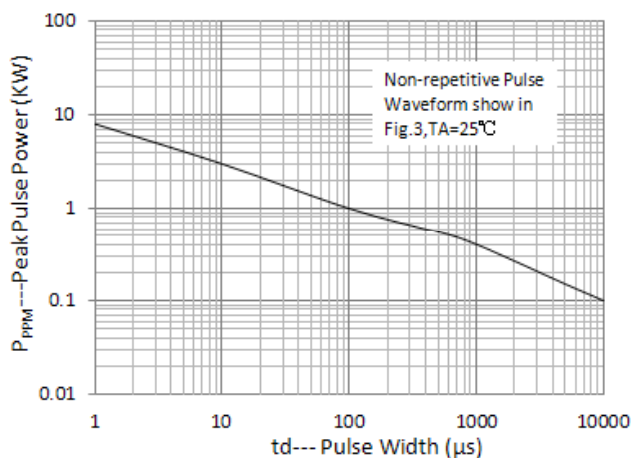
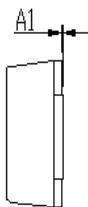
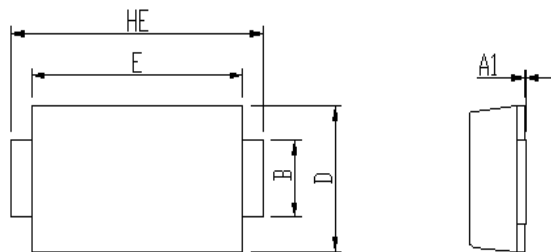


Figure 5. Peak Pulse Power Derating Curve

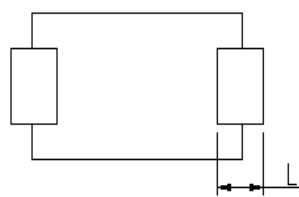
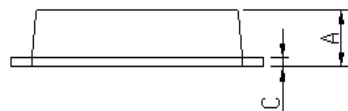
L4TVS10A thru L4TVS64A

Surface Mount Transient Voltage Suppressors
Peak Pulse Power 400W Stand-off Voltage 10V to 64V

Package Outline Dimensions (in millimeters) eSGB (SMAF)



DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
A	0.9	1.08	0.035	0.043
A1	0	0.1	0.000	0.004
B	1.25	1.45	0.049	0.057
C	0.1	0.25	0.004	0.010
D	2.6	2.8	0.102	0.110
E	4.1	4.3	0.161	0.169
L	0.7	1.1	0.028	0.043
HE	4.8	5.2	0.189	0.205



Soldering footprint

