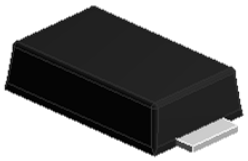
L4TVS10A thru L4TVS190A

Surface Mount Transient Voltage Suppressors

Peak Pulse Power 400W Stand-off Voltage 10 to 190V

Features

RoHS COMPLIANT



eSGB (SMAF)

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

Typical Applications

Use in sensitive electronics protection against voltage transients induced by inductive load switching and lighting on Ics,mosfet,signal lines of sensor units for consumer,computer,industrial and telecommunication

Maximum Ratings (TA = 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 uni-directional only	I_{FSM}	40.0	A
Maximum instantaneous forward clamping voltage at 25A	V_F	2.0	V
Thermal resistance junction to ambient air	Rthja[3)]	75	℃/W
Operating junction and storage temperature range	TJ, TSTG	-65 to +150	℃

Notes:

1) Non-repetitive current,per fig.3 and derated above TA=25℃ 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 L4TVS190A

Surface Mount Transient Voltage Suppressors

Peak Pulse Power 400W Stand-off Voltage 10 to 190V

Electrical Characteristics (TA = 25 °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	1	21.5	18.6
L4TVS14A	14	15.6	17.2	1	1	23.2	17.2
L4TVS15A	15	16.7	18.5	1	1	24.4	16.4
L4TVS16A	16	17.8	19.7	1	1	26	15.4
L4TVS17A	17	18.9	20.9	1	1	27.6	14.5
L4TVS18A	18	20	22.1	1	1	29.2	13.7
L4TVS20A	20	22.2	24.5	1	1	32.4	12.3
L4TVS22A	22	24.4	26.9	1	1	35.5	11.3
L4TVS24A	24	26.7	29.5	1	1	38.9	10.3
L4TVS26A	26	28.9	31.9	1	1	42.1	9.5
L4TVS28A	28	31.1	34.4	1	1	45.4	8.8
L4TVS30A	30	33.3	36.8	1	1	48.4	8.3
L4TVS33A	33	36.7	40.6	1	1	53.3	7.5
L4TVS36A	36	40	44.2	1	1	58.1	6.9
L4TVS40A	40	44.4	49.1	1	1	64.5	6.2
L4TVS43A	43	47.8	52.8	1	1	69.4	5.8
L4TVS45A	45	50	55.3	1	1	72.7	5.5
L4TVS48A	48	53.3	58.9	1	1	77.4	5.2
L4TVS51A	51	56.7	62.7	1	1	82.4	4.9
L4TVS54A	54	60	66.3	1	1	87.1	4.6
L4TVS58A	58	64.4	71.2	1	1	93.6	4.3
L4TVS60A	60	66.7	73.7	1	1	96.8	4.1
L4TVS64A	64	71.1	78.6	1	1	103	3.9
L4TVS70A	70	77.8	86	1	1	114	3.5
L4TVS75A	75	83.3	92.1	1	1	121	3.3
L4TVS78A	78	86.7	95.8	1	1	126	3.2
L4TVS80A	80	88.8	97.6	1	1	129	3.1
L4TVS85A	85	94.4	104	1	1	138	2.9
L4TVS90A	90	100	111	1	1	148	2.7
L4TVS100A	100	111	123	1	1	160	2.5
L4TVS110A	110	122	135	1	1	182	2.2
L4TVS120A	120	133	147	1	1	191	2.1
L4TVS130A	130	144	159	1	1	211	1.9
L4TVS140A	140	155	171	1	1	223	1.8
L4TVS150A	150	167	185	1	1	250	1.6
L4TVS160A	160	178	197	1	1	267	1.5
L4TVS170A	170	189	209	1	1	286	1.4
L4TVS180A	180	201	222	1	1	286	1.4
L4TVS190A	190	211	232	1	1	334	1.2

Ratings and Characteristics Curves

(TA = 25℃ unless otherwise noted)

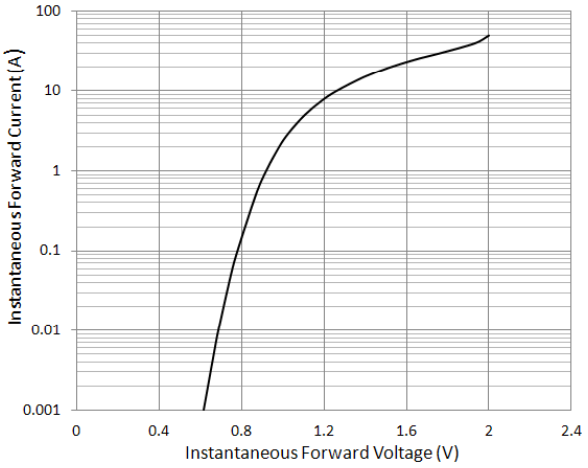


Figure 1. Typical Instantaneous Forward Characteristics

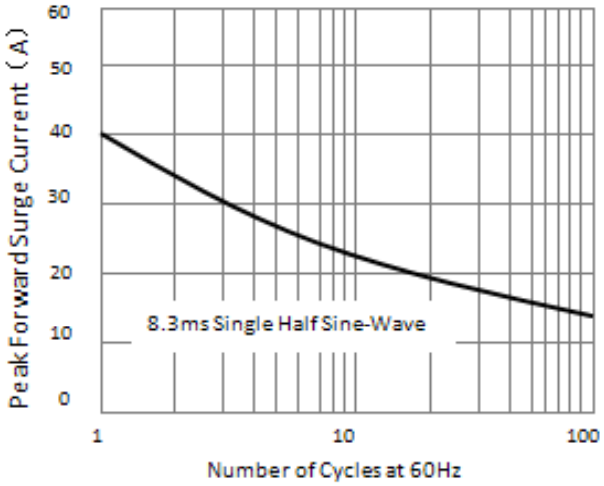


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

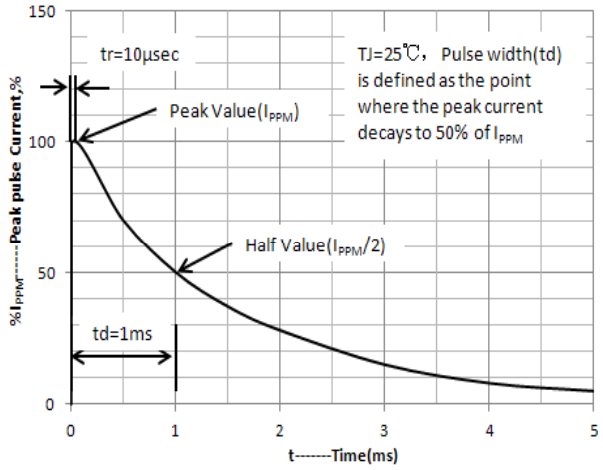


Figure 3. Pulse Waveform

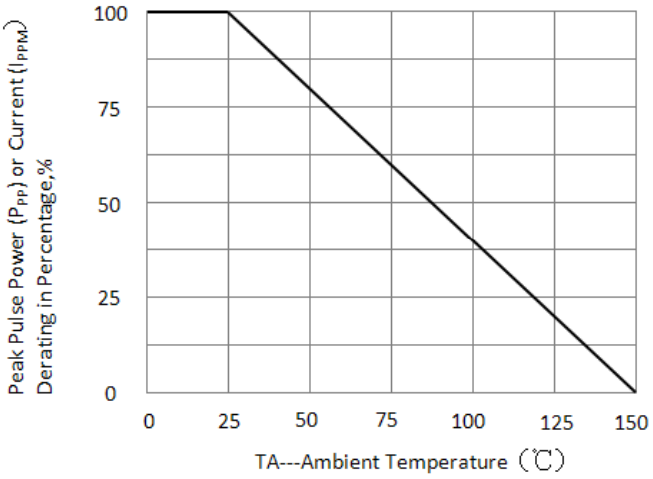


Figure 4. Peak Pulse Power Derating Curve

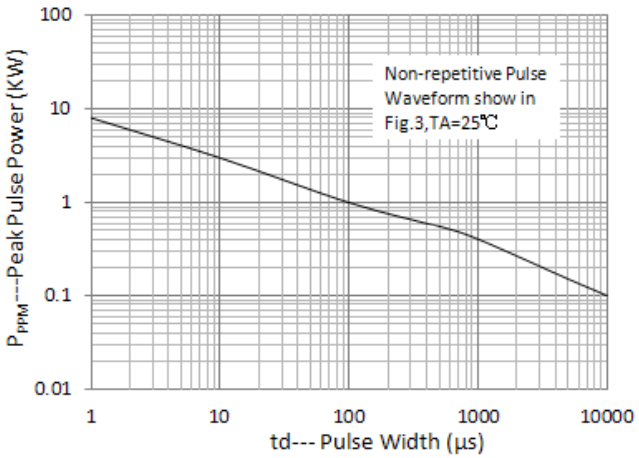
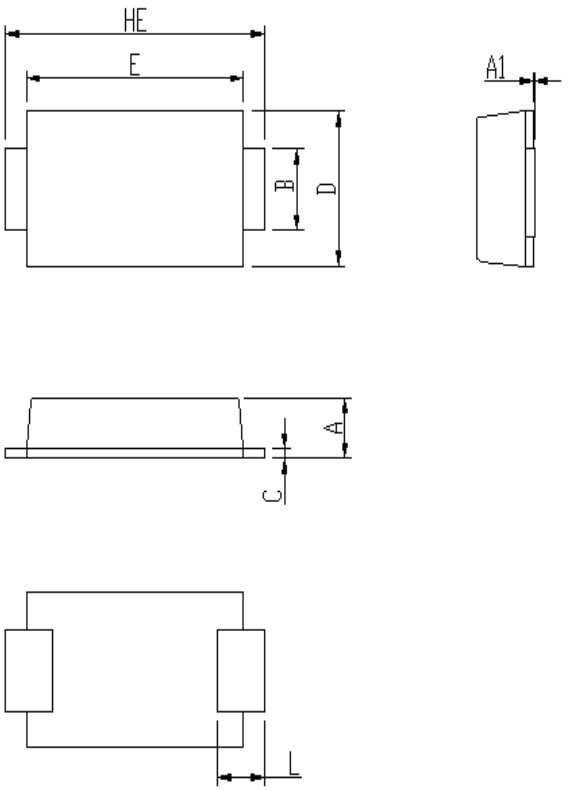


Figure 5. Peak Pulse Power Derating Curve

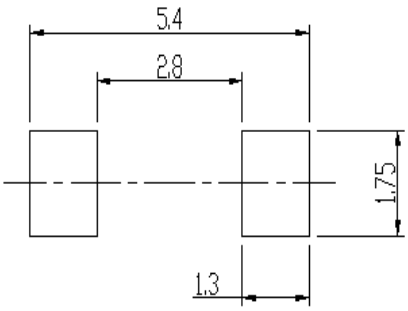
Package Outline Dimensions

in inches (millimeters)



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

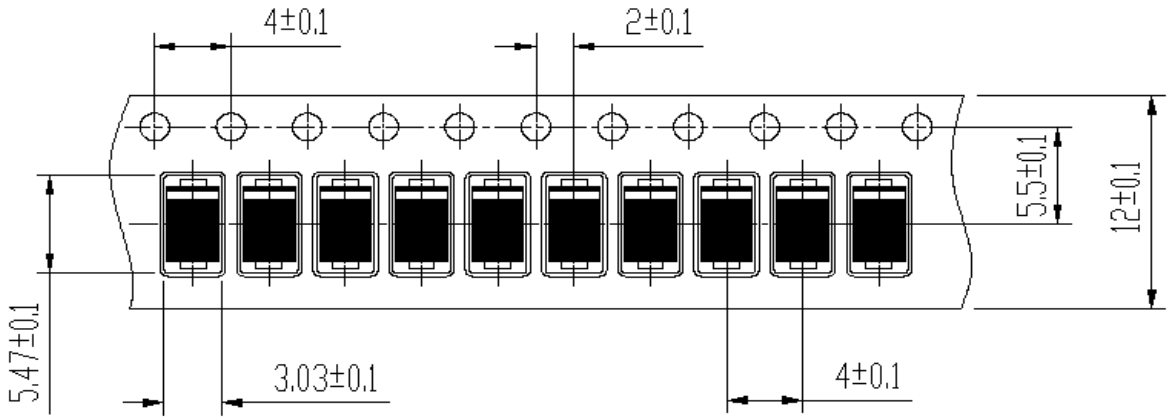


Packing Information

Packing quantities:

10,000 pcs/Reel，12mm Tape, 13" Reel

Tape & Reel Specification



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