L2TVS10.0A thru L2TVS190A

Surface Mount Transient Voltage Suppressors
Peak Pulse Power 200W Stand-off Voltage 10.0 to 190V

Features

- Glass passivated junction
- Moisture sensitivity: level 1, per J-STD-020
- Solder dip 260 °C, 10 s
- Low profile， typical thickness 1.0mm
- Polarity:Uni-directional
- Excellent clamping capability and Fast response time
- 200W peak pulse power capability with a 10/1000us waveform

RoHS COMPLIANT

eSGB (SMAF)

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 200	W
Peak pulse current with a 10/1000us waveform	I_{PPM} 1)	See Next Table	A
Steady state power dissipation on infinite heatsink	$P_{M(AV)}$ 2)	0.5	W
Peak forward surge current,8.3ms single half sine-wave uni-	I_{FSM}	30.0	A
Maximum instantaneous forward voltage at 25A	V_F	3.5	V
Thermal resistance junction to ambient air	Rthja	80	℃/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

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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
L2TVS10A	10	11.1	12.3	1	5	17	11.8
L2TVS11A	11	12.2	13.5	1	5	18.2	11
L2TVS12A	12	13.3	14.7	1	5	19.9	10.1
L2TVS13A	13	14.4	15.9	1	5	21.5	9.3
L2TVS14A	14	15.6	17.2	1	5	23.2	8.62
L2TVS15A	15	16.7	18.5	1	5	24.4	8.2
L2TVS16A	16	17.8	19.7	1	5	26	7.69
L2TVS17A	17	18.9	20.9	1	5	27.6	7.25
L2TVS18A	18	20	22.1	1	5	29.2	6.85
L2TVS20A	20	22.2	24.5	1	5	32.4	6.17
L2TVS22A	22	24.4	26.9	1	5	35.5	5.63
L2TVS24A	24	26.7	29.5	1	5	38.9	5.14
L2TVS26A	26	28.9	31.9	1	5	42.1	4.75
L2TVS28A	28	31.1	34.4	1	5	45.4	4.41
L2TVS30A	30	33.3	36.8	1	5	48.4	4.13
L2TVS33A	33	36.7	40.6	1	5	53.3	3.75
L2TVS36A	36	40	44.2	1	5	58.1	3.44
L2TVS40A	40	44.4	49.1	1	5	64.5	3.1
L2TVS43A	43	47.8	52.8	1	5	69.4	2.88
L2TVS45A	45	50	55.3	1	5	72.7	2.75
L2TVS48A	48	53.3	58.9	1	5	77.4	2.58
L2TVS51A	51	56.7	62.7	1	5	82.4	2.43
L2TVS54A	54	60	66.3	1	5	87.1	2.3
L2TVS58A	58	64.4	71.2	1	5	93.6	2.14
L2TVS60A	60	66.7	73.7	1	5	96.8	2.07
L2TVS64A	64	71.1	78.6	1	5	103	1.94
L2TVS70A	70	77.8	86	1	5	113	1.77
L2TVS75A	75	83.3	92.1	1	5	121	1.65
L2TVS78A	78	86.7	95.8	1	5	126	1.59
L2TVS80A	80	88.8	97.6	1	5	129	1.55
L2TVS85A	85	94.4	104	1	5	137	1.46
L2TVS90A	90	100	111	1	5	146	1.37
L2TVS100A	100	111	123	1	5	162	1.23
L2TVS110A	110	122	135	1	5	177	1.13
L2TVS120A	120	133	147	1	5	193	1.04
L2TVS130A	130	144	159	1	5	209	0.96
L2TVS140A	140	155	171	1	5	224	0.89
L2TVS150A	150	167	185	1	5	243	0.82
L2TVS160A	160	178	197	1	5	259	0.77
L2TVS170A	170	189	209	1	5	275	0.73
L2TVS180A	180	201	222	1	5	292	0.69
L2TVS190A	190	211	232	1	5	324	0.62

Ratings and Characteristics Curves

(TA = 25℃ unless otherwise noted)

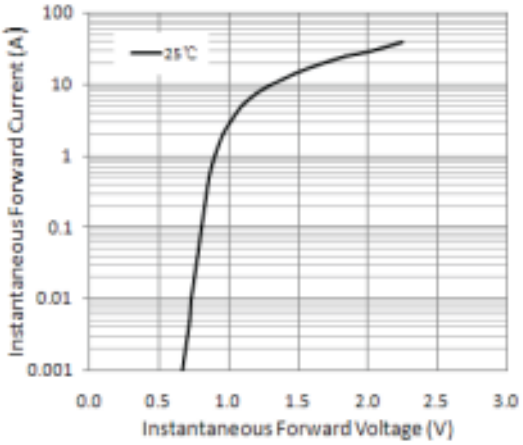


Figure 1. Typical Instantaneous Forward Characteristics

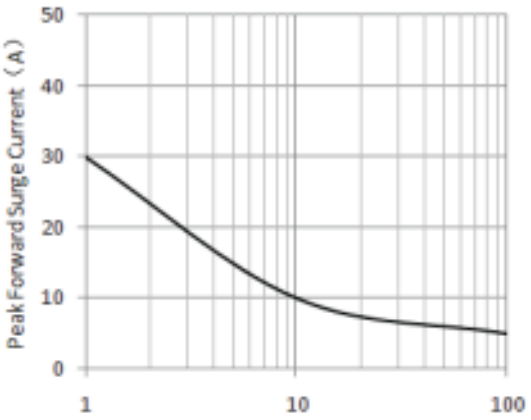


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

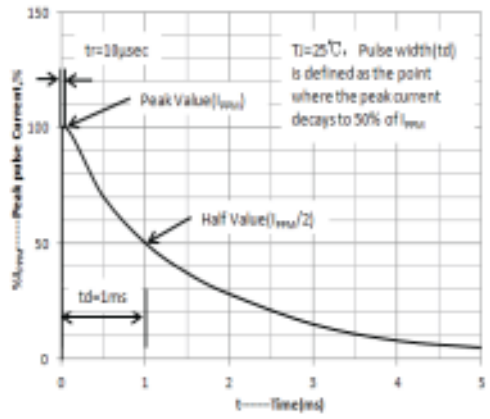


Figure 3. Pulse Waveform

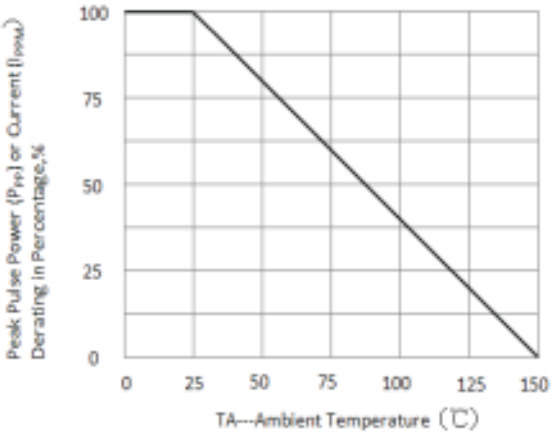


Figure 4. Peak Pulse Power Derating Curve

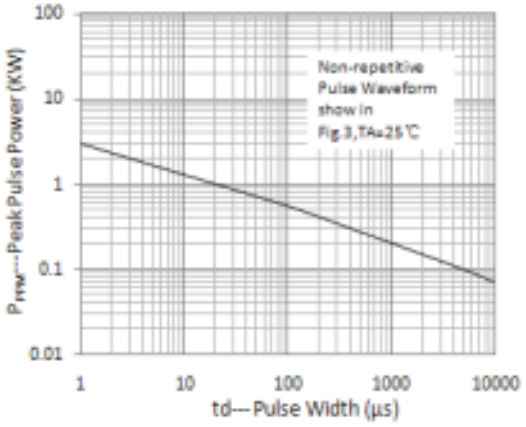
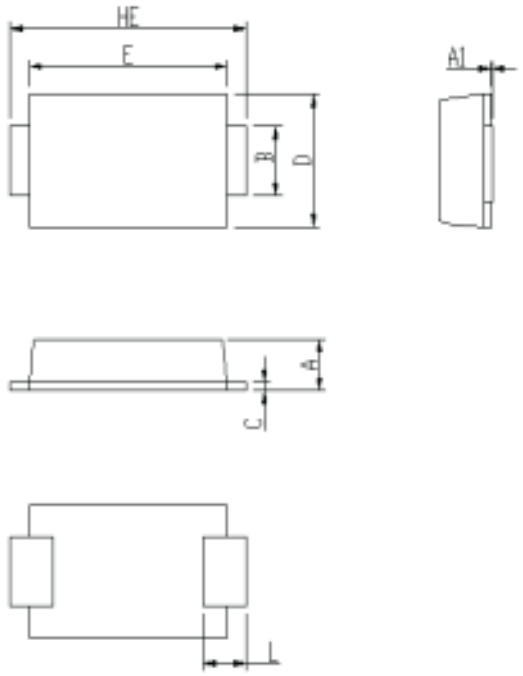


Figure 5. Peak Pulse Power Derating Curve

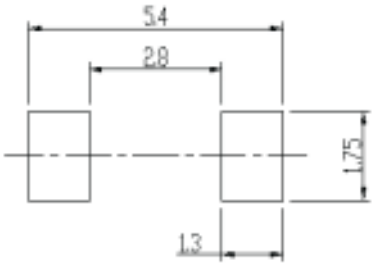
Package Outline Dimensions

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