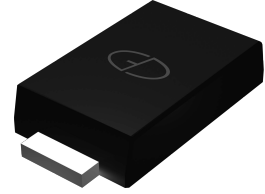


Features

- Glass passivated junction
- Excellent clamping capability and Fast response time
- 200W 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}	Minimum 200	W
Peak Pulse Current with a 10/1000us Waveform	I _{PPM}	See Next Table	A
Steady State Power Dissipation on Infinite Heatsink	P _{M(AV)}	1	W
Peak Forward Surge Current, 8.3ms Single Half sine-Wave	I _{FSM}	30.0	A
Maximum Instantaneous Forward Voltage @25A	V _F	3.5	V
Thermal Resistance Junction to Ambient Air	R _{thja}	85	°C/W
Operating Junction and Storage Temperature Range	T _J , T _{STG}	-65 to +175	°C

Note1: Thermal resistance from junction to mount, mounted on PCB with 8.0×8.0mm copper pads

S2TVS10A thru S2TVS190A

Surface Mount Transient Voltage Suppressors
 Peak Pulse Power 200W Stand-off Voltage 10V to 190V

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

Part Number	Reverse Stand-off	Breakdown Voltage		Test Current	Reverse Leakage	Max. Clamp Voltage	Peak Pulse Current
	V_{RWM}	$V_{BR} @ I_T$		I_T	$I_R @ V_{RWM}$	$V_C @ I_{PP}$	I_{PP}
		Min	Max				
S2TVS10A	10	11.1	12.3	1	5	17	11.8
S2TVS11A	11	12.2	13.5	1	5	18.2	11
S2TVS12A	12	13.3	14.7	1	5	19.9	10.1
S2TVS13A	13	14.4	15.9	1	5	21.5	9.3
S2TVS14A	14	15.6	17.2	1	5	23.2	8.62
S2TVS15A	15	16.7	18.5	1	5	24.4	8.2
S2TVS16A	16	17.8	19.7	1	5	26	7.69
S2TVS17A	17	18.9	20.9	1	5	27.6	7.25
S2TVS18A	18	20	22.1	1	5	29.2	6.85
S2TVS19A	19	21.1	23.3	1	5	30.6	6.54
S2TVS20A	20	22.2	24.5	1	5	32.4	6.17
S2TVS22A	22	24.4	26.9	1	5	35.5	5.63
S2TVS24A	24	26.7	29.5	1	5	38.9	5.14
S2TVS26A	26	28.9	31.9	1	5	42.1	4.75
S2TVS28A	28	31.1	34.4	1	5	45.4	4.41
S2TVS30A	30	33.3	36.8	1	5	48.4	4.13
S2TVS33A	33	36.7	40.6	1	5	53.3	3.75
S2TVS36A	36	40	44.2	1	5	58.1	3.44
S2TVS40A	40	44.4	49.1	1	5	64.5	3.1
S2TVS43A	43	47.8	52.8	1	5	69.4	2.88
S2TVS45A	45	50	55.3	1	5	72.7	2.75
S2TVS48A	48	53.3	58.9	1	5	77.4	2.58
S2TVS51A	51	56.7	62.7	1	5	82.4	2.43
S2TVS54A	54	60	66.3	1	5	87.1	2.3
S2TVS58A	58	64.4	71.2	1	5	93.6	2.14
S2TVS60A	60	66.7	73.7	1	5	96.8	2.07
S2TVS64A	64	71.1	78.6	1	5	103	1.94
S2TVS70A	70	77.8	86	1	5	113	1.77
S2TVS75A	75	83.3	92.1	1	5	121	1.65

S2TVS10A thru S2TVS190A

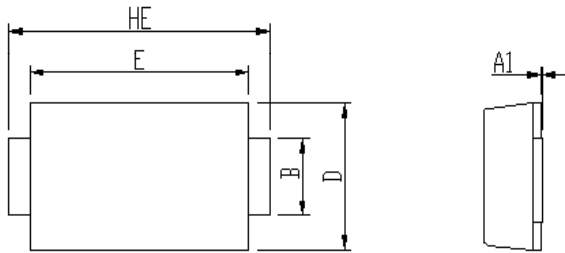
Surface Mount Transient Voltage Suppressors
Peak Pulse Power 200W Stand-off Voltage 10V to 190V

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

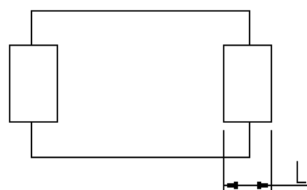
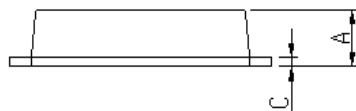
Part Number	Reverse Stand-off	Breakdown Voltage		Test Current	Reverse Leakage	Max. Clamp Voltage	Peak Pulse Current
	V_{RWM}	$V_{BR} @ I_T$		I_T	$I_R @ V_{RWM}$	$V_C @ I_{PP}$	I_{PP}
		Min	Max				
S2TVS78A	78	86.7	95.8	1	5	126	1.59
S2TVS80A	80	88.8	97.6	1	5	129	1.55
S2TVS85A	85	94.4	104	1	5	137	1.46
S2TVS90A	90	100	111	1	5	146	1.37
S2TVS100A	100	111	123	1	5	162	1.23
S2TVS110A	110	122	135	1	5	177	1.13
S2TVS120A	120	133	147	1	5	193	1.04
S2TVS130A	130	144	159	1	5	209	0.96
S2TVS140A	140	155	171	1	5	224	0.89
S2TVS150A	150	167	185	1	5	243	0.82
S2TVS160A	160	178	197	1	5	259	0.77
S2TVS170A	170	189	209	1	5	275	0.73
S2TVS180A	180	201	222	1	5	292	0.69
S2TVS190A	190	211	232	1	5	324	0.62

Package Outline Dimensions (in millimeters)

(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

