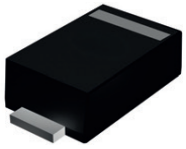
GSF2TVS5.0A thru GSF2TVS190A

Surface Mount Transient Voltage Suppressors
Peak Pulse Power 200W Stand-off Voltage 5.0V to 190V

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



SOD-123FL

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.

RoHS COMPLIANT

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 at 25A	V_F	3.5	V
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	90	°C/W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-65 to +150	°C

Note:1), The thermal resistance from junction to ambient, case or mount, mounted on P.C.B with 5×5mm copper pads, 2 OZ, FR4 PCB

GOOD-ARK
SEMICONDUCTOR

GSF2TVS5.0A thru GSF2TVS190A

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Electrical Characteristics (T_A = 25 °C unless otherwise noted)

Part Number	Marking	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Reverse Leakage	Max. Clamp Voltage	Peak Pulse
			V_{BR} @ I_T		I_T	I_R@ V_{RWM}	Vc @ I_{PP}	I_{PP}
		V_{RWM}	Min	Max				
		V	V	V	mA	μA	V	A
GSF2TVS5.0A	5A0	5	6.4	7.07	10	400	9.2	21.7
GSF2TVS6.0A	6A1	6	6.67	7.37	10	400	10.3	19.4
GSF2TVS6.5A	6A5	6.5	7.22	7.98	10	250	11.2	17.9
GSF2TVS7.0A	7A0	7	7.78	8.6	10	100	12	16.7
GSF2TVS7.5A	7A5	7.5	8.33	9.21	1	50	12.9	15.5
GSF2TVS8.0A	8A0	8	8.89	9.83	1	25	13.6	14.7
GSF2TVS8.5A	8A5	8.5	9.44	10.4	1	10	14.4	13.9
GSF2TVS9.0A	9A0	9	10	11.1	1	5	15.4	13
GSF2TVS10A	10A	10	11.1	12.3	1	1	17	11.8
GSF2TVS11A	11A	11	12.2	13.5	1	1	18.2	11
GSF2TVS12A	12A	12	13.3	14.7	1	1	19.9	10.1
GSF2TVS13A	13A	13	14.4	15.9	1	1	21.5	9.3
GSF2TVS14A	14A	14	15.6	17.2	1	1	23.2	8.62
GSF2TVS15A	15A	15	16.7	18.5	1	1	24.4	8.2
GSF2TVS16A	16A	16	17.8	19.7	1	1	26	7.69
GSF2TVS17A	17A	17	18.9	20.9	1	1	27.6	7.25
GSF2TVS18A	18A	18	20	22.1	1	1	29.2	6.85
GSF2TVS19A	19A	19	21.1	23.3	1	1	30.6	6.54
GSF2TVS20A	20A	20	22.2	24.5	1	1	32.4	6.17
GSF2TVS22A	22A	22	24.4	26.9	1	1	35.5	5.63
GSF2TVS24A	24A	24	26.7	29.5	1	1	38.9	5.14
GSF2TVS26A	26A	26	28.9	31.9	1	1	42.1	4.75
GSF2TVS28A	28A	28	31.1	34.4	1	1	45.4	4.41
GSF2TVS30A	30A	30	33.3	36.8	1	1	48.4	4.13
GSF2TVS33A	33A	33	36.7	40.6	1	1	53.3	3.75
GSF2TVS36A	36A	36	40	44.2	1	1	58.1	3.44
GSF2TVS40A	40A	40	44.4	49.1	1	1	64.5	3.1
GSF2TVS43A	43A	43	47.8	52.8	1	1	69.4	2.88
GSF2TVS45A	45A	45	50	55.3	1	1	72.7	2.75
GSF2TVS48A	48A	48	53.3	58.9	1	1	77.4	2.58
GSF2TVS51A	51A	51	56.7	62.7	1	1	82.4	2.43
GSF2TVS54A	54A	54	60	66.3	1	1	87.1	2.3
GSF2TVS58A	58A	58	64.4	71.2	1	1	93.6	2.14
GSF2TVS60A	60A	60	66.7	73.7	1	1	96.8	2.07
GSF2TVS64A	64A	64	71.1	78.6	1	1	103	1.94
GSF2TVS70A	70A	70	77.8	86	1	1	113	1.77
GSF2TVS75A	75A	75	83.3	92.1	1	1	121	1.65

GSF2TVS5.0A thru GSF2TVS190A

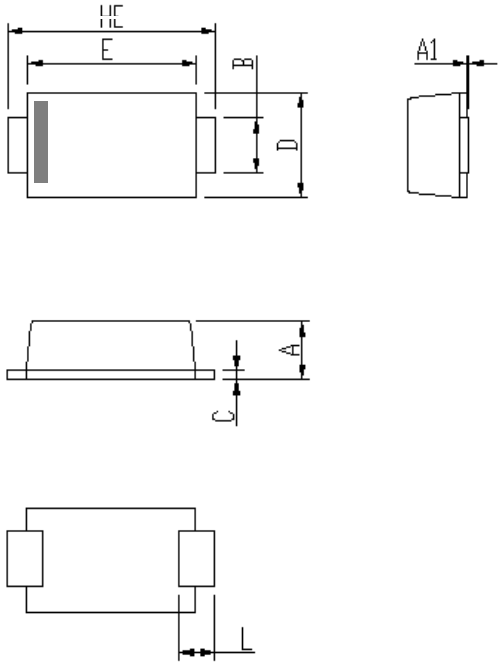
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Part Number	Marking	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Reverse Leakage	Max. Clamp Voltage	Peak Pulse
			V_{BR} @ I_T		I_T	I_R@ V_{RWM}	Vc @ I_{PP}	I_{PP}
		V_{RWM}	Min	Max				
		V	V	V	mA	μA	V	A
GSF2TVS78A	78A	78	86.7	95.8	1	1	126	1.59
GSF2TVS80A	80A	80	88.8	97.6	1	1	129	1.55
GSF2TVS85A	85A	85	94.4	104	1	1	137	1.46
GSF2TVS90A	90A	90	100	111	1	1	146	1.37
GSF2TVS100A	100A	100	111	123	1	1	162	1.23
GSF2TVS110A	110A	110	122	135	1	1	177	1.13
GSF2TVS120A	120A	120	133	147	1	1	193	1.04
GSF2TVS130A	130A	130	144	159	1	1	209	0.96
GSF2TVS140A	140A	140	155	171	1	1	224	0.89
GSF2TVS150A	150A	150	167	185	1	1	243	0.82
GSF2TVS160A	160A	160	178	197	1	1	259	0.77
GSF2TVS170A	170A	170	189	209	1	1	275	0.73
GSF2TVS180A	180A	180	201	222	1	1	292	0.69
GSF2TVS190A	190A	190	211	232	1	1	324	0.62

Package Outline Dimensions (in millimeters) **(SOD-123FL)**



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	0.85	1.05	0.033	0.041
C	0.1	0.25	0.004	0.010
D	1.7	2	0.067	0.079
E	2.9	3.1	0.114	0.122
L	0.43	0.83	0.017	0.033
HE	3.5	3.9	0.138	0.154

Soldering footprint

