

F4TVS10A thru F4TVS64A

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



eSGA
(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

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

PARAMETER	SYMBOL	Value	UNIT
Peak power dissipation with a 10/1000us waveform	P_{PPM}	Minimum 400	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}	40.0	A
Maximum instantaneous forward voltage at 25A	V_F	3.5	V
Thermal resistance junction to ambient air	R_{thja}	100	°C/W
Operating junction and storage temperature range	TJ, TSTG	-65 to +175	°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

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Electrical Characteristics

(T_A = 25 °C unless otherwise noted)

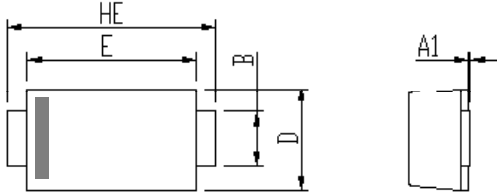
Part Number	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Max Reverse Leakage Current	Max. Clamp Voltage	Peak Pulse Current
	V _{RWM}	V _{BR} @ I _T		I _T	I _R @ V _{RWM}	V _C @ I _{PP}	I _{PP}
		Min	Max				
F4TVS10A	10	11.1	12.3	1	2.5	17	23.5
F4TVS11A	11	12.2	13.5	1	2.5	18.2	22
F4TVS12A	12	13.3	14.7	1	2.5	19.9	20.1
F4TVS13A	13	14.4	15.9	1	0.1	21.5	18.6
F4TVS14A	14	15.6	17.2	1	0.1	23.2	17.2
F4TVS15A	15	16.7	18.5	1	0.1	24.4	16.4
F4TVS16A	16	17.8	19.7	1	0.1	26	15.4
F4TVS17A	17	18.9	20.9	1	0.1	27.6	14.5
F4TVS18A	18	20	22.1	1	0.1	29.2	13.7
F4TVS20A	20	22.2	24.5	1	0.1	32.4	12.3
F4TVS22A	22	24.4	26.9	1	0.1	35.5	11.3
F4TVS24A	24	26.7	29.5	1	0.1	38.9	10.3
F4TVS26A	26	28.9	31.9	1	0.1	42.1	9.5
F4TVS28A	28	31.1	34.4	1	0.1	45.4	8.8
F4TVS30A	30	33.3	36.8	1	0.1	48.4	8.3
F4TVS33A	33	36.7	40.6	1	0.1	53.3	7.5
F4TVS36A	36	40	44.2	1	0.1	58.1	6.9
F4TVS40A	40	44.4	49.1	1	0.1	64.5	6.2
F4TVS43A	43	47.8	52.8	1	0.1	69.4	5.8
F4TVS45A	45	50	55.3	1	0.1	72.7	5.5
F4TVS48A	48	53.3	58.9	1	0.1	77.4	5.2
F4TVS51A	51	56.7	62.7	1	0.1	82.4	4.9
F4TVS54A	54	60	66.3	1	0.1	87.1	4.6
F4TVS58A	58	64.4	71.2	1	0.1	93.6	4.3
F4TVS60A	60	66.7	73.7	1	0.1	96.8	4.1
F4TVS64A	64	71.1	78.6	1	0.1	103	3.9

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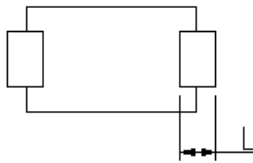
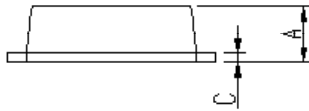
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Package Outline Dimensions (in millimeters) eSGA(SOD-123FL)



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

