F4TVS3.3A thru F4TVS64A

Surface Mount Transient Voltage Suppressors
Peak Pulse Power 400W Stand-off Voltage 3.3V to 64V

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, 10 s
- Low profile， typical thickness 1.0mm

RoHS COMPLIANT

eSGA
(SOD-123FL)

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 and Thermal Characteristics

(TA = 25 °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	Rthja	100	℃/W
Operating junction and storage temperature range	TJ, TSTG	-65 to +175	℃

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

Electrical Characteristics

(TA = 25 °C unless otherwise noted)

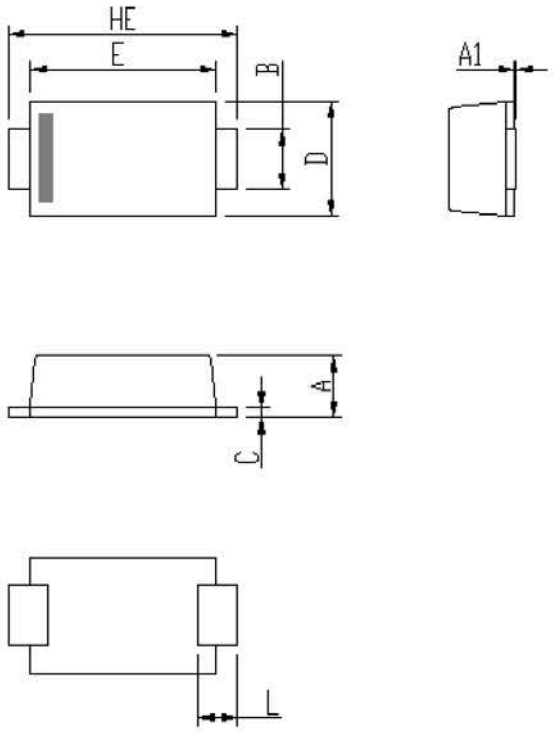
Part Number	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Max Reverse Leakage Current	Max. Clamp Voltage	Peak Pulse Current
	VRWM	VBR @ IT		IT	IR @ VRWM	Vc @ IPP	IPP
		Min	Max				
	V	V	V	mA	µA	V	A
F4TVS3.3A	3.3	5.2	6	1	600	8	43.8
F4TVS5.0A	5	6.4	7	1	400	9.2	43.5
F4TVS6.0A	6	6.67	7.37	1	400	10.3	38.8
F4TVS6.5A	6.5	7.22	7.98	1	250	11.2	35.7
F4TVS7.0A	7	7.78	8.6	1	100	12	33.3
F4TVS7.5A	7.5	8.33	9.21	1	50	12.9	31
F4TVS8.0A	8	8.89	9.83	1	25	13.6	29.4
F4TVS8.5A	8.5	9.44	10.4	1	10	14.4	27.8
F4TVS9.0A	9	10	11.1	1	5	15.4	26
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

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
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

PACKAGE OUTLINE DIMENSIONS (in 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	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