

Surface Mount Transient Voltage Suppressors Peak Pulse Power 200W Stand-off Voltage 10 to 36V

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
- AEC-Q101 qualified

Typical Applications



eSGA (SOD-123FL)

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,automotive 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	А		
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-directional only	I _{FSM}	30.0	A		
Maximum instantaneous forward voltage at 25A	V _F	3.5	V		
Thermal resistance junction to ambient air	Rthja	85	°C/W		
Operating junction and storage temperature range	TJ, TSTG	-65 to +150	°C		

Notes:

1) Non-repetitive current, per fig.3 and derated above TA=25 $^\circ\!\!C$ per fig.4.

2) Power dissipation mounted on recommended pad layout

3) Thermal resistance from junction to ambient, mounted on PCB with 5.0×5.0 mm copper pads



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Electrical Characteristics (TA = 25 °C unless otherwise noted)								
Part Number	Marking Code	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Max Reverse Leakage Current	Max. Clamp Voltage	Peak Pulse Current
		VRWM	VBR @ IT		τŢ		V & TDD	TDD
			Min	Max	11	IR @ VRWM	VC W IPP	IFF
		V	V	V	mA	μA	V	А
AF2TVS10A	A210	10	11.1	12.3	1	5	17	11.8
AF2TVS11A	A211	11	12.2	13.5	1	5	18.2	11
AF2TVS12A	A212	12	13.3	14.7	1	5	19.9	10.1
AF2TVS13A	A213	13	14.4	15.9	1	5	21.5	9.3
AF2TVS14A	A214	14	15.6	17.2	1	5	23.2	8.62
AF2TVS15A	A215	15	16.7	18.5	1	5	24.4	8.2
AF2TVS16A	A216	16	17.8	19.7	1	5	26	7.69
AF2TVS17A	A217	17	18.9	20.9	1	5	27.6	7.25
AF2TVS18A	A218	18	20	22.1	1	5	29.2	6.85
AF2TVS20A	A220	20	22.2	24.5	1	5	32.4	6.17
AF2TVS22A	A222	22	24.4	26.9	1	5	35.5	5.63
AF2TVS24A	A224	24	26.7	29.5	1	5	38.9	5.14
AF2TVS26A	A226	26	28.9	31.9	1	5	42.1	4.75
AF2TVS28A	A228	28	31.1	34.4	1	5	45.4	4.41
AF2TVS30A	A230	30	33.3	36.8	1	5	48.4	4.13
AF2TVS33A	A233	33	36.7	40.6	1	5	53.3	3.75
AF2TVS36A	A236	36	40	44.2	1	5	58.1	3.44



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Ratings and Characteristics Curves



Figure 1. Typical Instantaneous Forward Characteristics







Figure 5. Peak Pulse Power Derating Curve



Figure 2.Maximum Non-Repetitive Peak Forward Surge Current



Figure 4. Peak Pulse Power Derating Curve

Package Outline Dimensions

in inches (millimeters)

D M	Unit: m m		Unit: inch		
	16 77	14 4 77	16 71		

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	M N	MAX	M IN	MAX
A	0.9	1.08	0.035	0.043
A 1	0	0.1	0.000	0.004
В	0.85	1.05	0.033	0.041
С	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
ΗE	3.5	3.9	0.138	0.154

Soldering footprint





Packing Information

Packing quantities: 3000 pcs/Reel, 40 Reels/Box; 8mm Tape, 7" Reel

Tape & Reel Specification



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