

MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

PESD1IVNXX-AX-MS

Product specification

FEATURES

- IEC61000-4-2 (ESD) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact) IEC61000-4-4 (EFT) 40A (5/50ns)
- 350 Watts Peak Pulse Power per (tp=8/20 μs)
Protects one I/O line (bidirectional)
- Low clamping voltage
- Working voltages :
- 3V,5V,8V,12V,15V,18V,20V,24V,36V
- Low leakage current

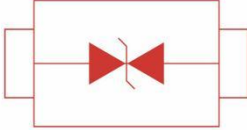
MACHANICAL DATA

- SOD-323 package
- Flammability Rating: UL 94V-0
- Packaging: Tape and Reel
- High temperature soldering guaranteed:260C/10s
- Reel size: 7 inch
- MSL 1

APPLICATIONS

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Networking and Telecom
- Serial and Parallel Ports.
- Peripherals

Reference News

PACKAGE OUTLINE	PIN CONFIGURATION
	
SOD-323	

Marking for the PESD1IVNXX-AX-MS series

VRWM	3.3V	5V	8V	12V	15V	18V	20V	24V	36V
Marking	2A	2B	2C	2D	2J	2K	2L	2H	2N

ABSOLUTE MAXIMUM RATING

Symbol	Parameter	Value	Units
VESD	ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	±15 ±8	kV
PPP	Peak Pulse Power (8/20µs)	350	W
TOPT	Operating Temperature	-55/+150	°C
TSTG	Storage Temperature	-55/+150	°C
TL	Lead Soldering Temperature	260 (10 sec.)	°C

ELECTRICAL CHARACTERISTICS (Tamb=25 °C)

PART NUMBER	VRWM (V) (max.)	VB (V) (min.)	IT (mA)	VC@1A (V) (max.)	VC (V) (max.) (@A)		IR (µA) (max.)	CT (pF) (max.)
PESD1IVN3.3-AX-MS	3.3	4.0	1	7.5	16.0	20	40	450
PESD1IVN05-AX-MS	5.0	6.0	1	9.8	18.0	17	10	200
PESD1IVN08-AX-MS	8.0	8.5	1	13.4	24.0	15	2	120
PESD1IVN12-AX-MS	12.0	13.3	1	19.0	32.0	11	1	75
PESD1IVN15-AX-MS	15.0	16.7	1	24.0	38.0	10	1	68
PESD1IVN18-AX-MS	18.0	20.0	1	29.0	45.0	9	1	57
PESD1IVN20-AX-MS	20.0	22.3	1	35.0	50.0	8	1	52
PESD1IVN24-AX-MS	24.0	26.7	1	43.0	52.0	7	1	50
PESD1IVN36-AX-MS	36.0	40.0	1	60.0	75.0	4.5	1	35

ELECTRICAL CHARACTERISTICS CURVE

Fig 1 8/20 μ s Waveform per IEC61000-4-5

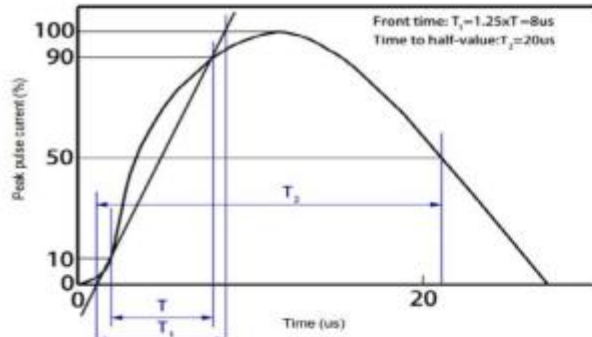


Fig 2 Contact Discharge Current Waveform per IEC 61000-4-2)

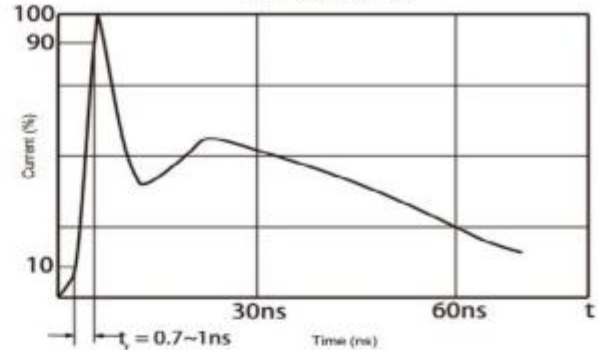


Fig 3 Voltage vs Capacitance

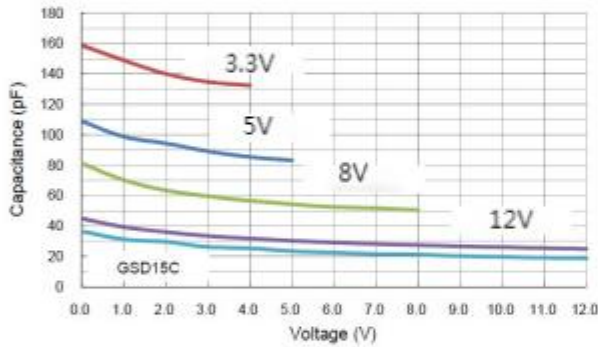


Fig 4 Voltage vs Capacitance

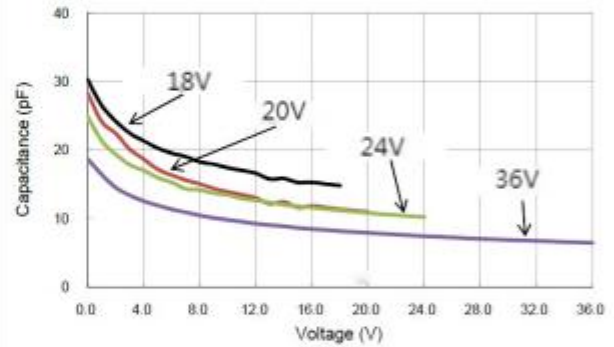


Fig 5 Clamping Voltage vs Peak Pulse Current

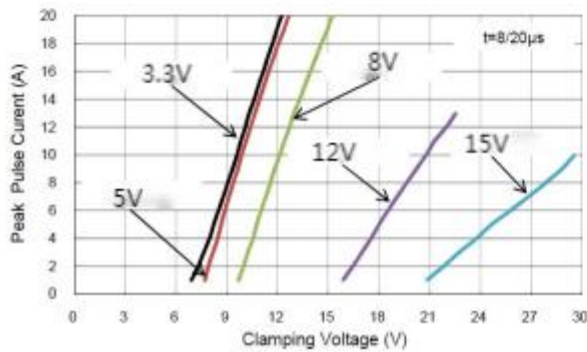
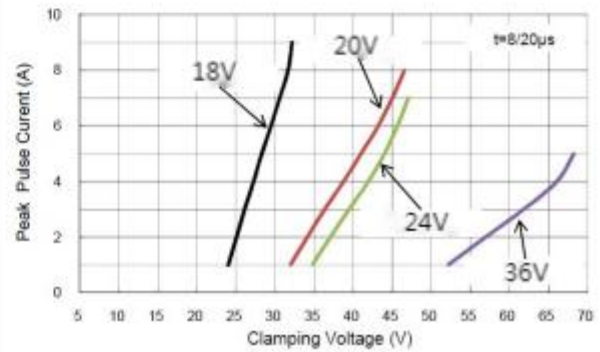
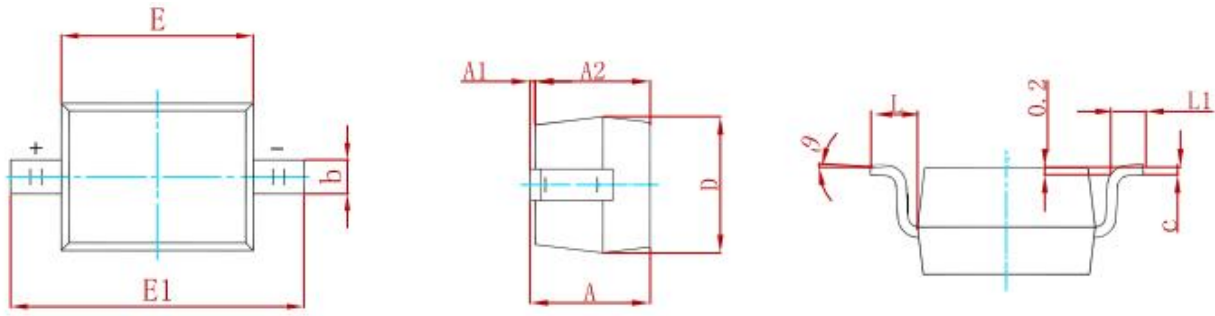
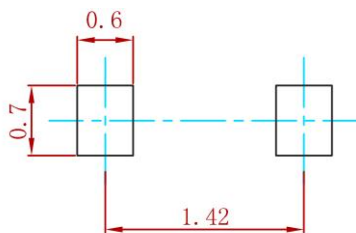


Fig 6 Clamping Voltage vs Peak Pulse Current



PACKAGE MECHANICAL DATA


Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A		1.000		0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.900	0.031	0.035
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.550	2.750	0.100	0.108
L	0.475 REF.		0.019 REF.	
L1	0.250	0.400	0.010	0.016
e	0°	8°	0°	8°

Suggested Pad Layout


Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
PESD1IVNXX-AX-MS	SOD-323	3000

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