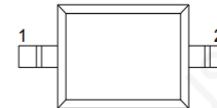


Description

The PESD1IVN24-AX-JSM is a Transient Voltage Suppressor Arrays that designed to protect components which are connected to data and transmission lines against electrostatic discharge (ESD), electrical fast Transients (EFT), and lightning. All pins are rated to withstand 30kV ESD pulses using the IEC61000-4-2 air discharge method.



Features

- IEC 61000-4-2 Level 4 ESD Protection
 - $\pm 30\text{kV}$ Contact Discharge
 - $\pm 30\text{kV}$ Air Discharge
- 350W Peak pulse Power (8/20us)
- Low clamping voltage
- Working voltage: 24V
- Low leakage current
- RoHS compliant
- Protecting one bidirectional

Applications

- Portable electronics
- Control & monitoring systems
- Servers, notebooks, and desktop PCs
- CAN bus protection
- Automotive application
- Cellular handsets and accessories

Absolute Maximum rating

Over operating free-air temperature range (unless otherwise noted)

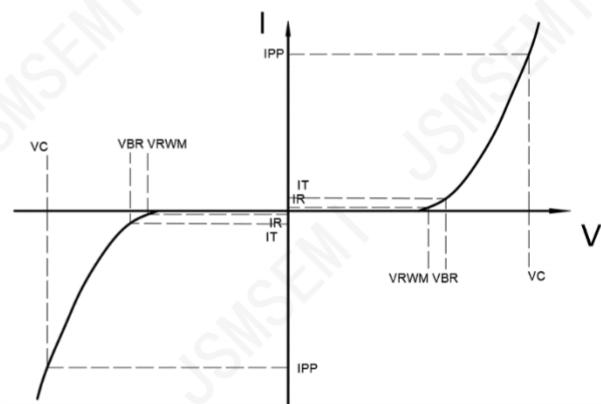
Parameters	Symbol	Min.	Max.	Unit
Peak pulse power (tp=8/20us)@25°C	P_{pk}	-	350	W
Peak pulse current (tp=8/20us)@25°C	I_{PP}		8	A
ESD (IEC61000-4-2 air discharge) @25°C	V_{ESD}	-	± 30	kV
ESD (IEC61000-4-2 contact discharge) @25°C	V_{ESD}	-	± 30	kV
Junction temperature	T_J	-	150	°C
Operating temperature	T_{OP}	-40	125	°C
Storage temperature	T_{STG}	-55	150	°C
Lead temperature	T_L	-	260	°C

Electrical Characteristics

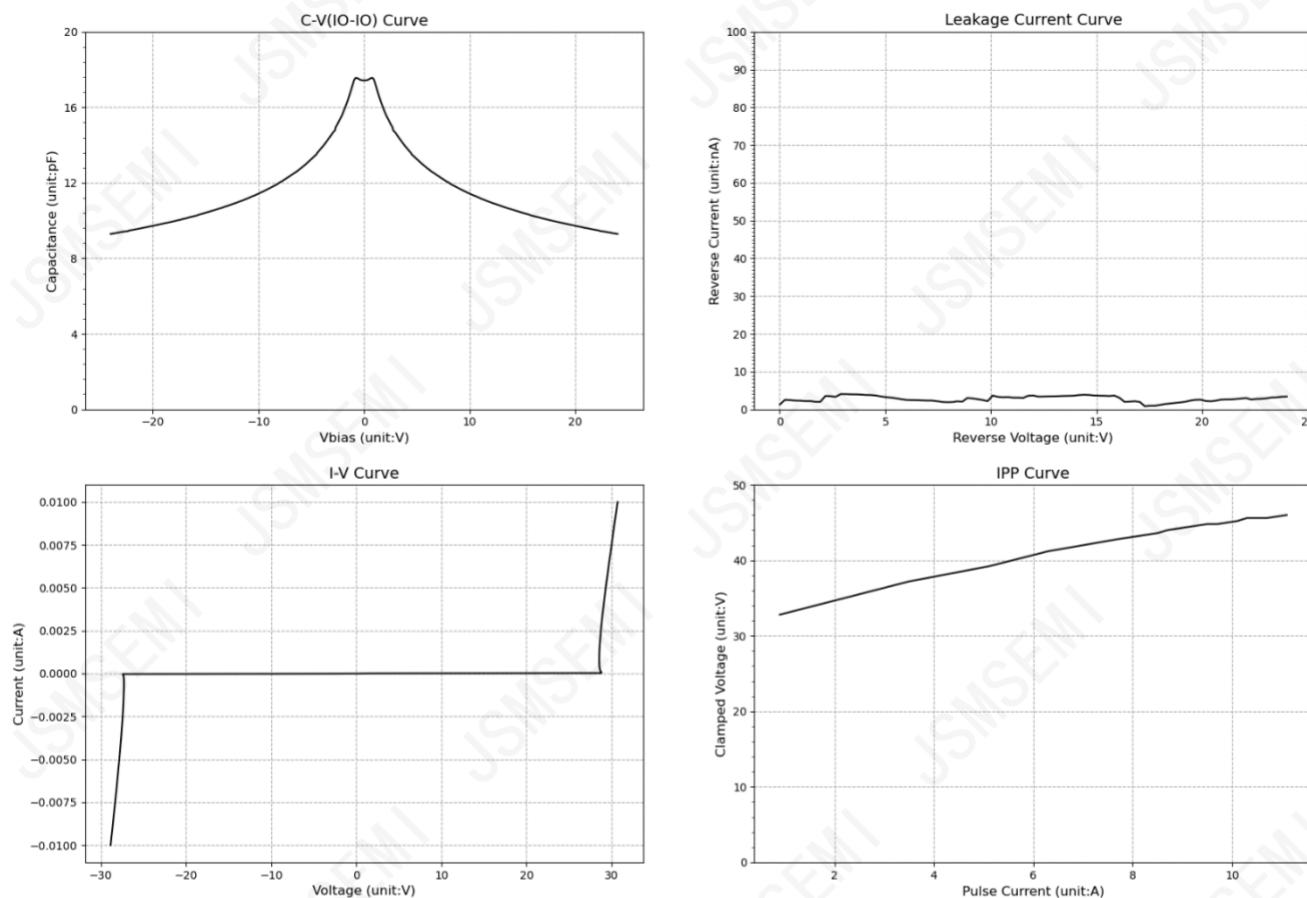
At TA = 25°C unless otherwise noted

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V_{RWM}				24.0	V
Reverse Breakdown Voltage	V_{BR}	$IT=1mA$	26.0	28.0		V
Reverse Leakage Current	I_R	$VRWM=24V$			100	nA
Clamping Voltage	V_C	$IPP=1A$; $tp=8/20\mu s$		31.0		V
Clamping Voltage	V_C	$IPP=8A$; $tp=8/20\mu s$		42.0		V
Junction Capacitance	C_J	$VR=0V$; $f=1MHz$		18		pF

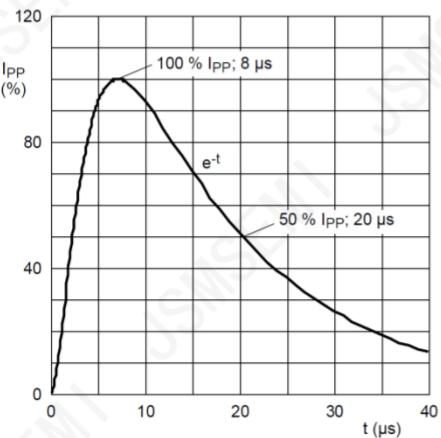
Symbol	Parameters
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
IPP	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ IPP



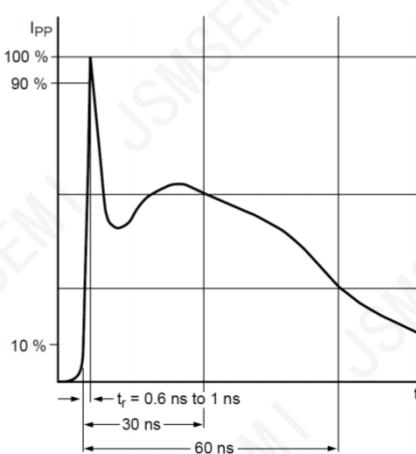
Typical Characteristic



Measurement Wave According to IEC Standard

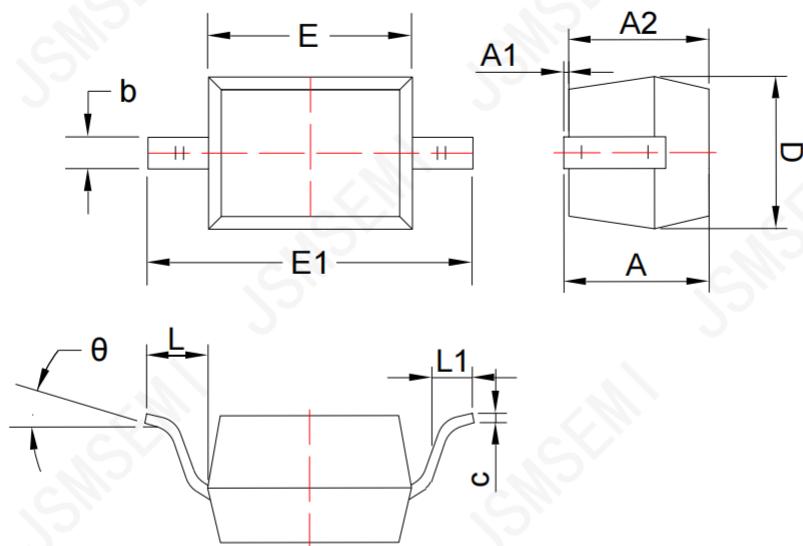


8/20 μ s pulse waveform according to
IEC 61000-4-5



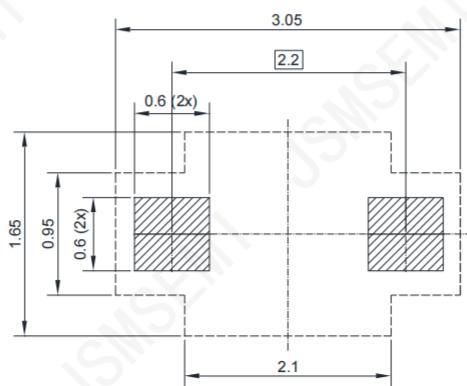
ESD pulse waveform according to
IEC 61000-4-2

Dimension (SOD-323)



Symbol	Dimensions in Millimeters	
	Min.	Max.
A	0.80	1.00
A1	0.00	0.14
A2	0.66	0.97
b	0.25	0.35
c	0.08	0.18
D	1.20	1.40
E	1.55	1.80
E1	2.50	2.80
L	0.475REF	
L1	0.25	0.40
θ	0°	8°

Recommended Soldering Footprint



DIMENSIONS: MILLIMETERS

Revision History

Rev.	Change	Date
V1.0	Initial version	6/27/2021

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