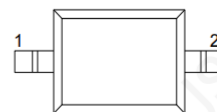


## Description

The PESD11VN24-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
  - ±30kV Contact Discharge
  - ±30kV 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)

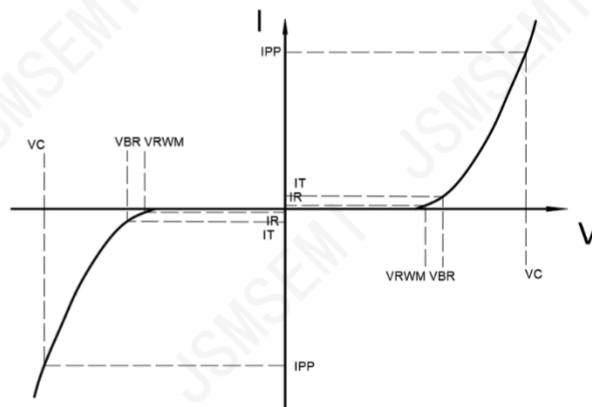
Parameters	Symbol	Min.	Max.	Unit
Peak pulse power (tp=8/20us)@25°C	P <sub>pk</sub>	-	350	W
Peak pulse current (tp=8/20us)@25°C	I <sub>PP</sub>		8	A
ESD (IEC61000-4-2 air discharge) @25°C	V <sub>ESD</sub>	-	±30	kV
ESD (IEC61000-4-2 contact discharge) @25°C	V <sub>ESD</sub>	-	±30	kV
Junction temperature	T <sub>J</sub>	-	150	°C
Operating temperature	T <sub>OP</sub>	-40	125	°C
Storage temperature	T <sub>STG</sub>	-55	150	°C
Lead temperature	T <sub>L</sub>	-	260	°C

## Electrical Characteristics

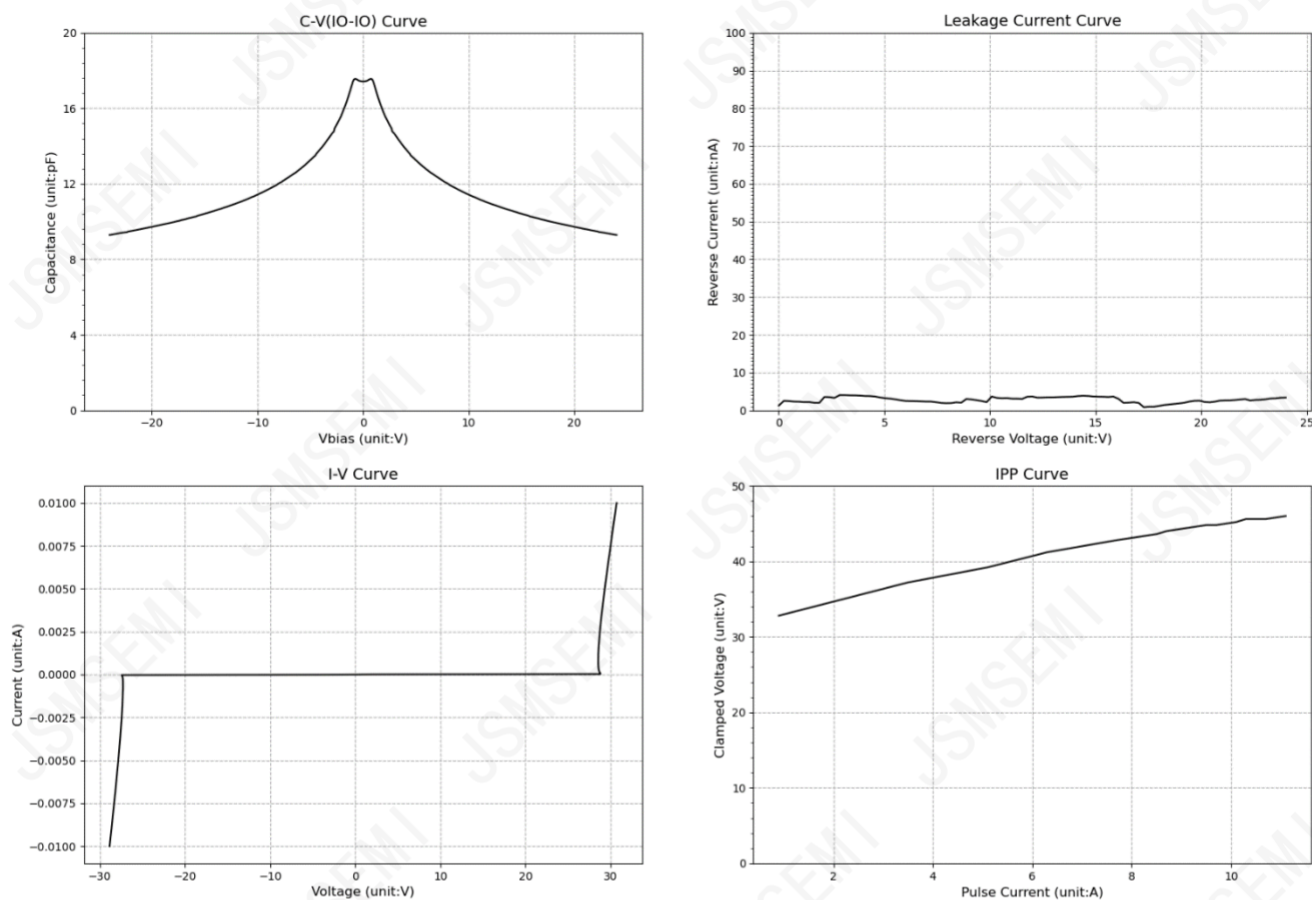
At  $T_A = 25^\circ\text{C}$  unless otherwise noted

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

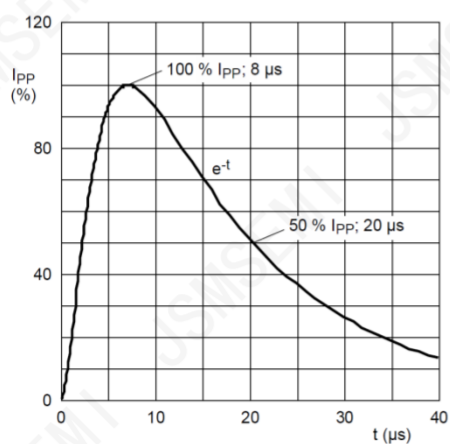
Symbol	Parameters
$V_{RWM}$	Peak Reverse Working Voltage
$I_R$	Reverse Leakage Current @ $V_{RWM}$
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$



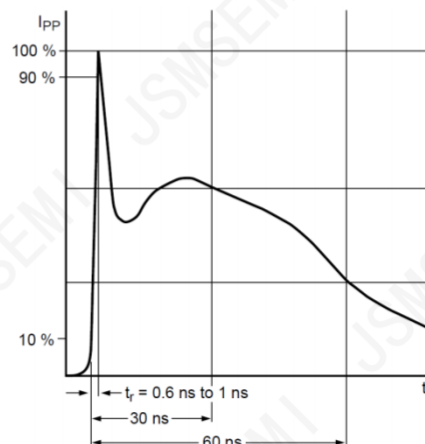
## Typical Characteristic



## Measurement Wave According to IEC Standard

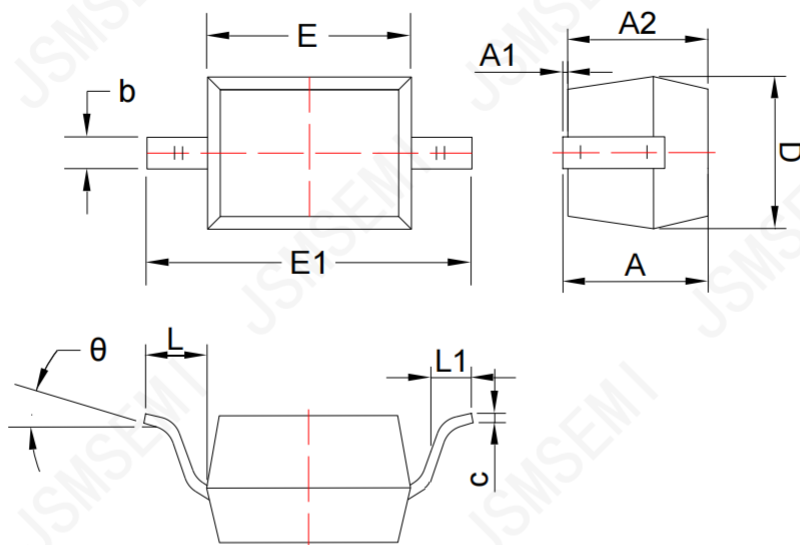


8/20  $\mu$ s pulse waveform according to  
IEC 61000-4-5



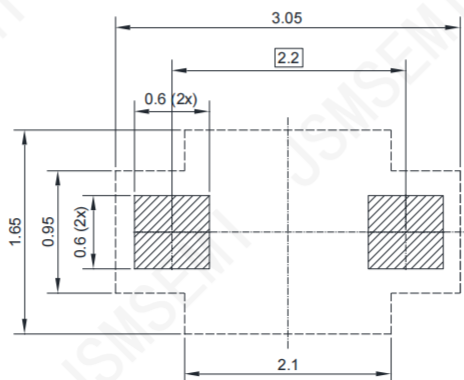
ESD pulse waveform according to  
IEC 61000-4-2

## 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
$\theta$	0°	8°

## Recommended Soldering Footprint



DIMENSIONS: MILLIMETERS

## Revision History

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

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