

# EVVOSEMI<sup>®</sup>

THINK CHANGE DO



ESD



TVS



MOS



LDO



Diode



Sensor



DC-DC

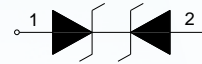
## Product Specification

▶ Domestic	Part Number	PESDxxVL1BA
▶ Overseas	Part Number	PESDxxVL1BA
▶ Equivalent	Part Number	PESDxxVL1BA

EV is the abbreviation of name EVVO

## Description

The PESDxxVL1BA is Transient Voltage Suppressor that designed to protect components which are connected to data and transmission lines against electrostatic discharge (ESD), electrical fast transient (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
- Low leakage current
- RoHS compliant
- Protecting one bi-directional lines
- Working voltage: 8/12/15/24/36V

## Applications

- Portable electronic
- Control & monitoring systems
- Servers, notebooks, and desktop PCs
- Set-top box
- Communications systems
- 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>		Refer to Table-5	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

Table-3 Absolute Maximum rating

## Electrical Characteristics

Symbol	Description
$V_{RWM}$	Rated reverse stand-off voltage
$V_{BR}$	Minimum breakdown voltage @ $I_T = 1\text{mA}$
$V_{CL}$	Typical Clamping voltage
$I_{PP}$	Maximum peak pulse current
$I_R$	Reverse leakage current @ $V_{RWM}$
$C_O$	Typical line capacitance ( $V_{IO}=0V$ , $V_{P-P} = 30\text{mV}$ , $f = 1\text{MHz}$ )

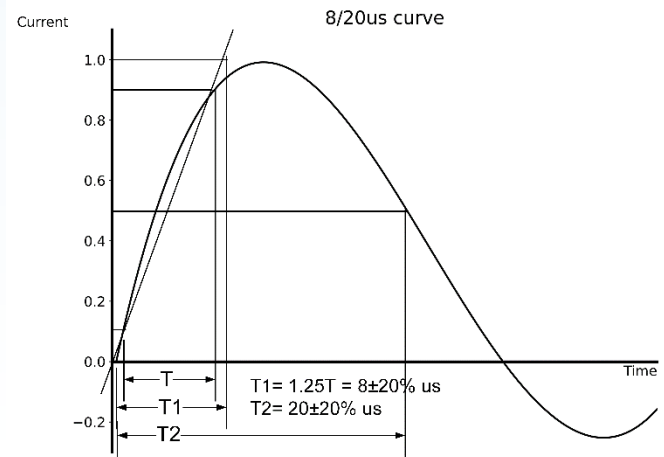
Table-4 Parameters Description

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

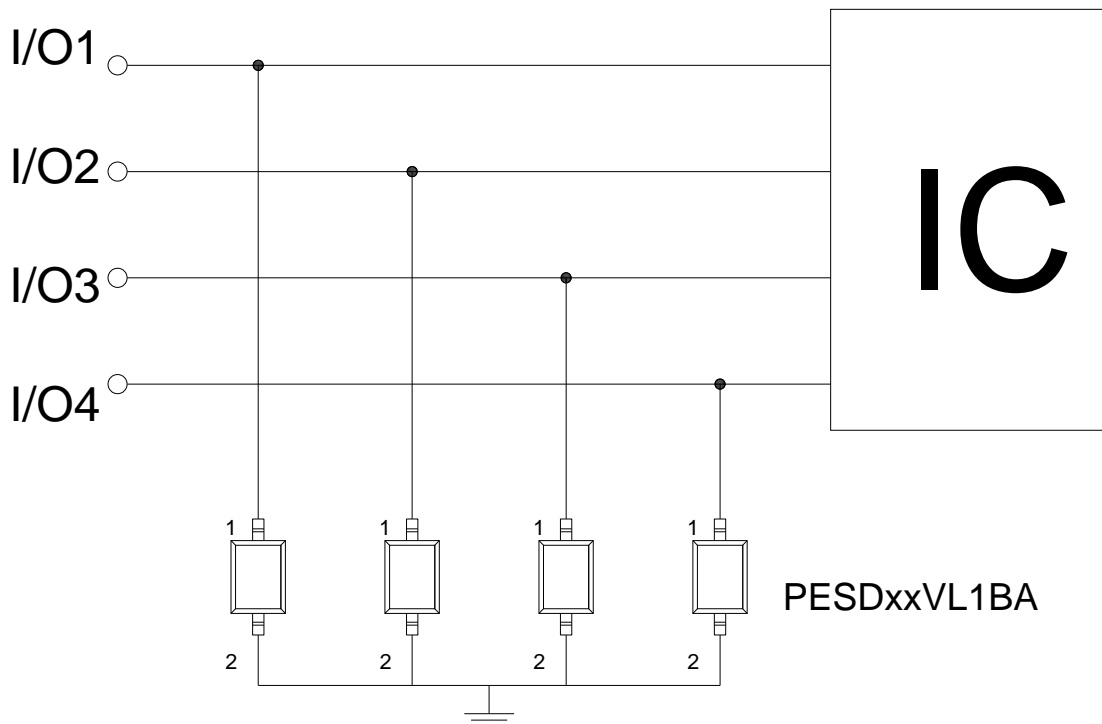
Part Number	$V_{RWM}$	$V_{BR}$	$V_{CL}@I=1A$	$I_{PP}$	$V_{CL}@I=I_{PP}$	$I_R$	$C_O$
	(V)	(V)	(V)	(A)	(V)	( $\mu\text{A}$ )	(pF)
PESD08VL1BA	8	8.5	11.0	15.0	28.0	1.0	110
PESD12VL1BA	12	13.3	20.0	12.0	37.0	1.0	70
PESD15VL1BA	15	16.5	25.0	9.0	55.0	1.0	40
PESD24VL1BA	24	26.0	40.0	6.0	63.0	1.0	30
PESD36VL1BA	36	38.0	55.0	4.0	72.0	1.0	25

Table-5 Electrical Characteristics for All Series

**Typical Characteristic**

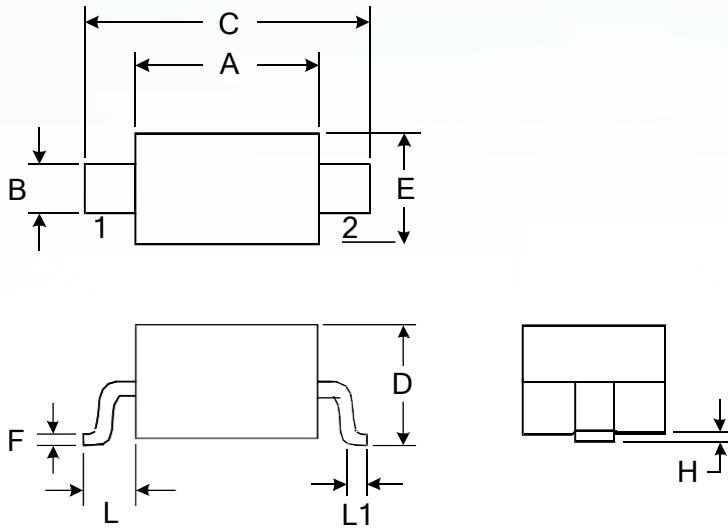


**Typical Application**



Typical Interface Application

**Outline Drawing – SOD323**



DIMENSIONS				
SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	1.600	1.800	0.063	0.071
B	0.250	0.350	0.010	0.014
C	2.500	2.700	0.098	0.106
D		1.000		0.039
E	1.200	1.400	0.047	0.055
F	0.080	0.150	0.003	0.006
L	0.475 REF		0.019REF	
L1	0.250	0.400	0.010	0.016
H	0.000	0.100	0.000	0.004

**Marking**



**Ordering information**

Order code	Package	Base qty	Delivery mode
PESD36VL1BA	SOD-323	3000	Tape and reel

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