

## 1.Features

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.

## 3.Applications

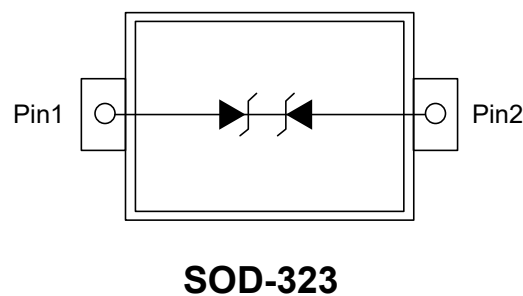
- Portable electronic
- Control & monitoring systems
- Servers, notebooks, and desktop PCs

## 2.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
- Low leakage current
- RoHS complia nt
- Protecting one bi -directional lines
- Working voltage: 12/15/24/36V

- Set-top box
- Communications systems
- Cellular handsets and accessories

## 4.Pinning information





## 5. Absolute Maximum Ratings $T_A = 25^\circ\text{C}$

Parameter	Symbol	Maximum	Units
Peak pulse power ( $t_p=8/20\mu\text{s}$ )@ $25^\circ\text{C}$	$P_{PK}$	350	W
Peak pulse current ( $t_p=8/20\mu\text{s}$ )@ $25^\circ\text{C}$	$I_{PP}$	Refer to Table-5	A
ESD(IEC61000-4-2 air discharge) @ $25^\circ\text{C}$	$V_{ESD}$	$\pm 30$	kV
ESD(IEC61000-4-2 contact discharge) @ $25^\circ\text{C}$		$\pm 30$	kV
Junction temperature	$T_J$	150	$^\circ\text{C}$
Operating temperature	$T_{OP}$	125	$^\circ\text{C}$
Storage temperature	$T_{STG}$	150	$^\circ\text{C}$
Lead temperature	$T_L$	260	$^\circ\text{C}$

Notes: Table-3 Absolute Maximum rating



## 6. Electrical Characteristic

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

Notes: Table-4 Parameters Description

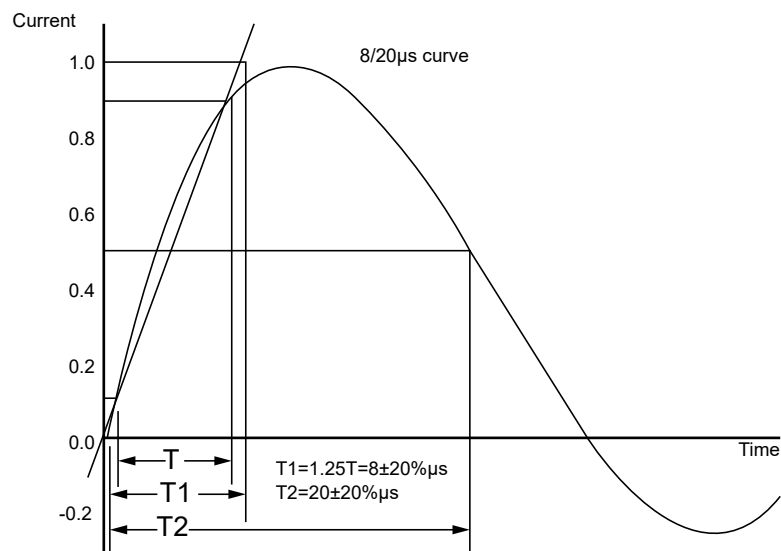
## 7. Electrical Parameters ( $T_A=25^{\circ}C$ unless otherwise noted )

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)	(uA)	(pF)
PESD12VL1BA	12	13.3	20	12	37	1	70
PESD15VL1BA	15	16.5	25	9	55	1	40
PESD24VL1BA	24	26	40	6	63	1	30
PESD36VL1BA	36	38	55	4	72	1	25

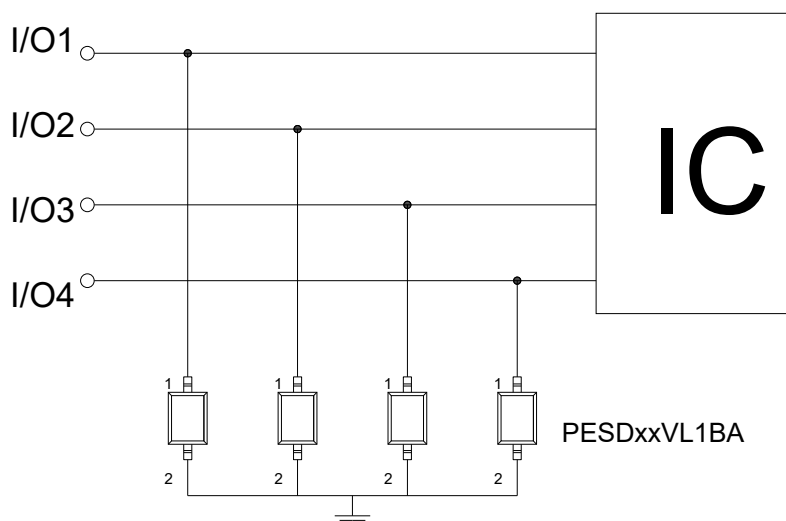
Notes: Table-5 Electrical Characteristics for All Series



## 8. Typical characteristic

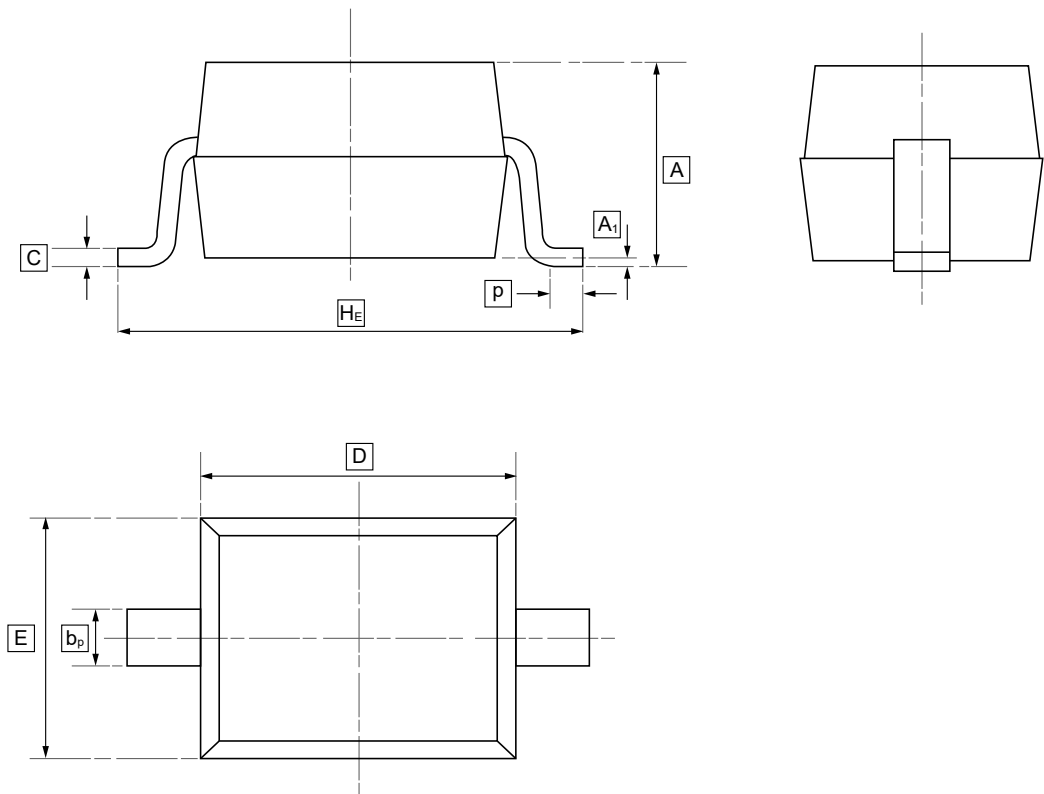


## 9. Typical Application





10.SOD-323 Package Outline Dimensions

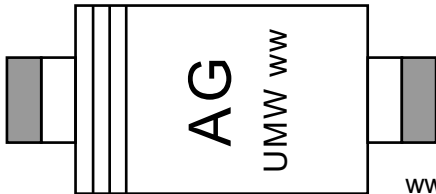


DIMENSIONS (mm are the original dimensions)

Symbol	A	b <sub>p</sub>	C	D	E	H <sub>E</sub>	A <sub>1</sub>	P
Min	0.90	0.25	0.10	1.60	1.15	2.30	0.01	0.20
Max	1.20	0.40	0.15	1.80	1.35	2.80	0.10	0.50



11.Ordering information



ww: Batch Code

Order Code	Marking	Package	Base QTY	Delivery Mode
UMW PESD12VL1BA	AD	SOD-323	3000	Tape and reel
UMW PESD15VL1BA	AE	SOD-323	3000	Tape and reel
UMW PESD24VL1BA	AF	SOD-323	3000	Tape and reel
UMW PESD36VL1BA	AG	SOD-323	3000	Tape and reel



## **12.Disclaimer**

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