

Features

- ◇ 150 W (8x20us) Peak Pulse Power ◇
- Low Clamping Voltage
- ◇ SOD-323 Package
- ◇ RoHS Compliant
- ◇ Matte Tin Lead finish (Pb-Free) ◇
- Protect One I/O or Power Line
- ◇ Meet IEC61000-4-2 Level 4:
Contact Discharge > 25kV
Air Discharge > 25kV

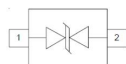
Applications

- ◇ Smart Phones
- ◇ Laptop Computers
- ◇ Portable Electronics

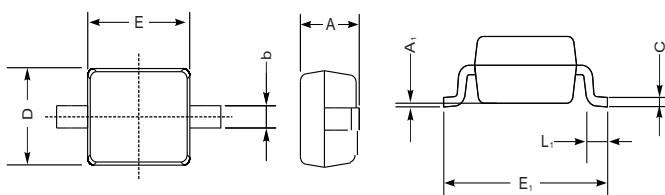
Circuit Diagram

Pin 1  Pin 2

PIN Diagram



SOD323



UNIT		A	C	D	E	E ₁	b	L ₁	A ₁
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—
mil	max	43	5.9	55	70	108	16	16	8
	min	32	3.1	47	63	100	9.8	7.9	—

Ordering information

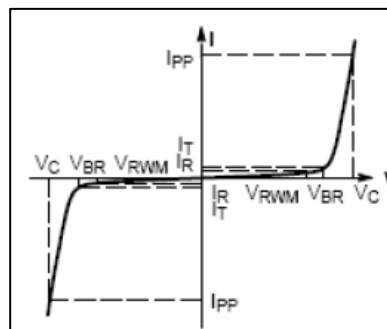
DeviceOE	Package	MARKING
PESD12VL1BA	SOD-323	AD

Maximum Ratings (Ta = 25°C)

Symbol	Parameter	Value	Unit
TJ	Junction Temperature	-55 to +150	°C
TSTG	Storage Temperature	-55 to +150	°C
Ipp Max	Maximum Peak Pulse Current	4	A
PPK	Peak Pulse Power	150	W

PESD12VL1BA

Symbol	Parameter
V_C	Clamping Voltage @ I_{PP}
I_{PP}	Peak Pulse Current
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_R	Reverse Leakage Current @ V_{RWM}
V_{RWM}	Reverse Standoff Voltage

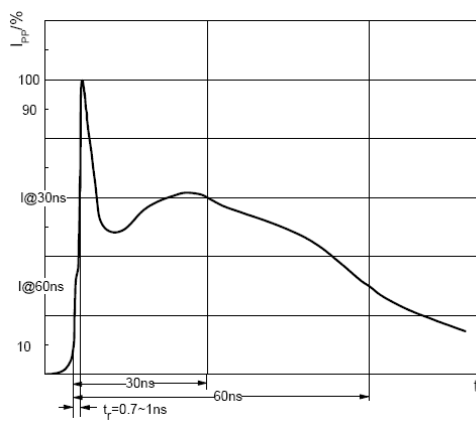


V-I characteristics for a Bi-directional TVS

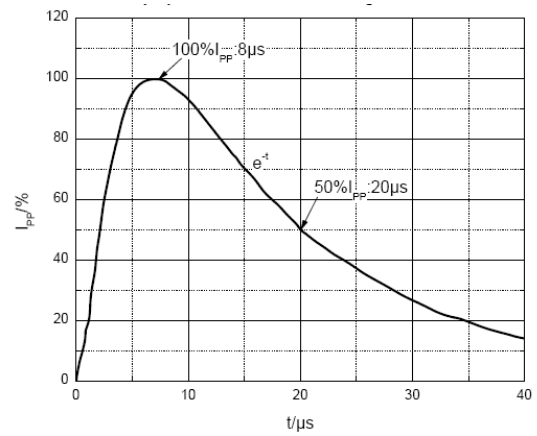
Electrical Characteristics ($T_a = 25^\circ\text{C}$)

PSD03C						
Symbol	Parameter	Conditions	Min	Typ	Max	Unit
VRWM	Reverse Working Peak Voltage				12	V
VBR	Reverse Breakdown Voltage	$I_T = 1\text{mA}$	13.6		16	V
IR	Reverse Leakage Current	$VRWM = 12\text{V}$			1	μA
VC	Clamping Voltage	$I_{PP} = 1\text{A}$ (8/20 μs			20	V
VC	Clamping Voltage	) $I_{PP} = 4\text{A}$ (8/20 μs			35	V
Ipp	Peak Pulse Current	s) $t_p = 8/20\mu\text{s}$			4	A
CJ	Capacitance	$VR = 0\text{V}$, $f = 1\text{MHz}$		60		pF

RATING AND CHARACTERISTIC CURVES (PESD12VL1BA)



ESD pulse waveform according to IEC61000-4-2



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

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