

Features

- Bi-directional ESD protection of one line
- 350Watts peak pulse power ($t_p = 8/20\mu s$)
- Working voltage: 15V
- AEC-Q101 qualified
- Junction Capacitance: 0.6pF(Typ)
- Low clamping voltage
- Low leakage current
- IEC 61000-4-2 $\pm 30kV$ contact $\pm 30kV$ air
- IEC 61000-4-5 (Lightning) 13A (8/20 μs)
- IEC61000-4-4 (EFT) 40A (5/50ns)

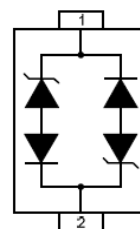
Applications

- USB Ports
- Smart Phones
- Wireless Systems
- Ethernet 10/100/1000 Base T

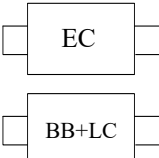
Mechanical Data

- Package:SOD-323
- Molding compound flammability rating: UL 94V-0
- RoHS/WEEE Compliant

Schematic & PIN Configuration



Ordering Information

Part Number	Package	Marking	Packing	Reel Size
PESD15VL1BA	SOD-323		3000 Tape & Reel	7 inches

Absolute Maximum Rating($T_A=25^{\circ}\text{C}$ unless otherwise Specified)

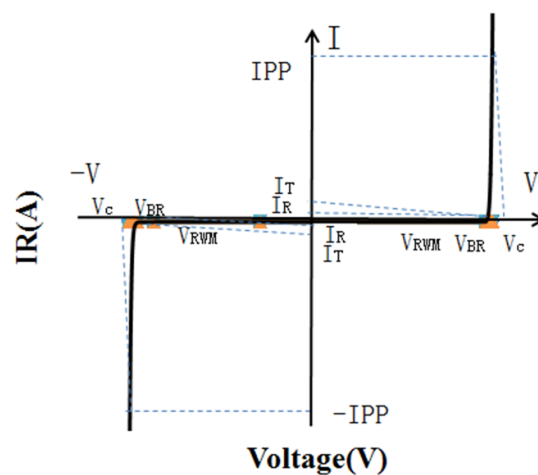
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	Ppk	350	W
Peak Pulse Current (8/20 μs)	IPP	13	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	VESD	± 30 ± 30	kV
Operating Temperature Range	TJ	-40 to +125	$^{\circ}\text{C}$
Storage Temperature Range	Tstg	-55 to +150	$^{\circ}\text{C}$

Electrical Characteristics($T_A=25^{\circ}\text{C}$ unless otherwise Specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	VRWM				15.0	V
Breakdown Voltage	VBR	$I_T = 1\text{mA}$	16.7	17.5		V
Reverse Leakage Current	IR	VRWM = 15V			0.2	μA
Clamping Voltage	VC	IPP = 1A (8 x 20 μs pulse)		20.0	23.0	V
Clamping Voltage	VC	IPP = 13A (8 x 20 μs pulse)		30.0	35.0	V
Junction Capacitance	CJ	VR = 0V, f = 1MHz		0.6	1.0	pF

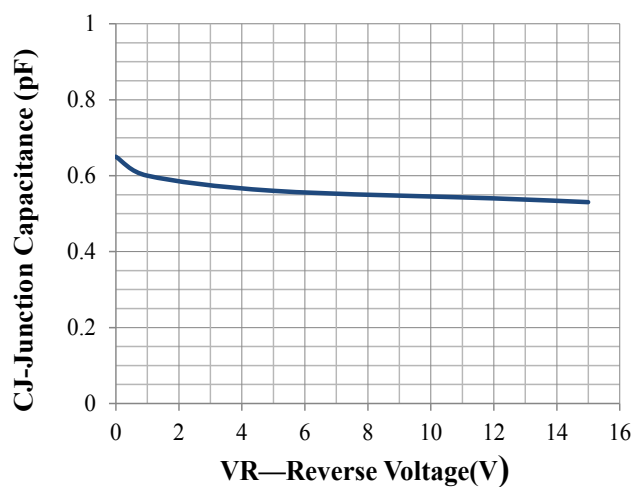
Electrical Parameters ($T_A = 25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter
I_T	Test Current
IPP	Maximum Reverse Peak Pulse Current
Vc	Clamping Voltage @Ic

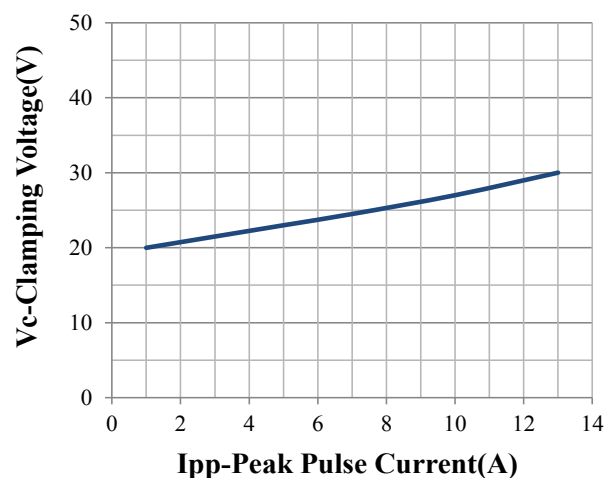




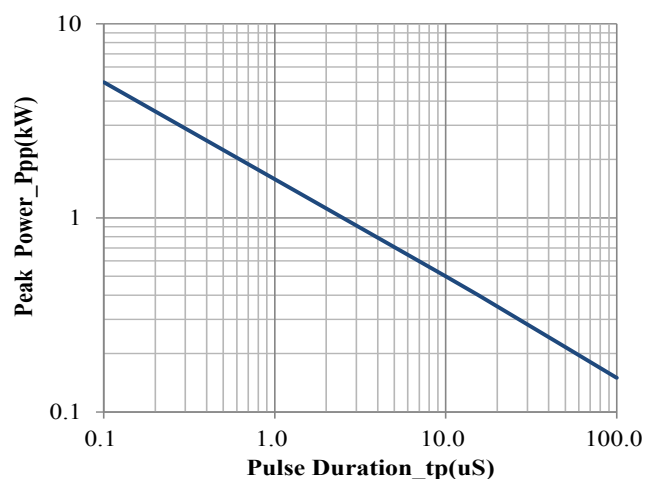
Typical Characteristics($T_A=25^{\circ}\text{C}$ unless otherwise Specified)



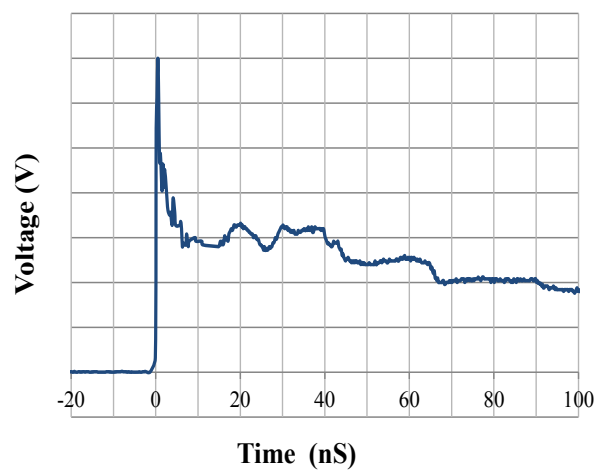
Junction Capacitance vs. Reverse Voltage



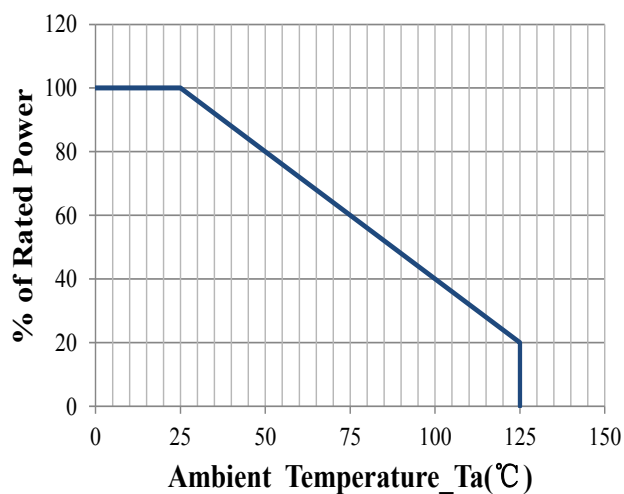
Clamping Voltage vs. Peak Pulse Current



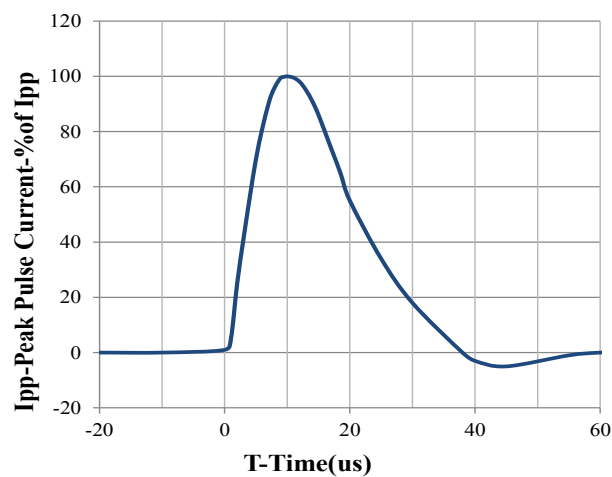
Peak Pulse Power vs. Pulse Time



IEC61000-4-2 Pulse Waveform



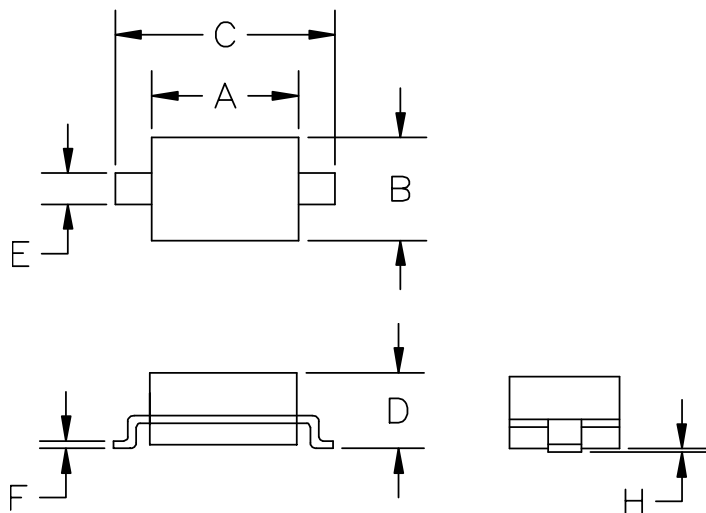
Power Derating Curve



8 X 20us Pulse Waveform



Outline Drawing – SOD-323



SYM	DIMENSIONS			
	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.50	1.80	0.060	0.071
B	1.20	1.40	0.045	0.054
C	2.30	2.70	0.090	0.107
D	-	1.10	-	0.043
E	0.30	0.40	0.012	0.016
F	0.10	0.25	0.004	0.010
H	-	0.10	-	0.004