

Features

- Bi-directional ESD protection of one lines
- 450Watts peak pulse power ($t_p = 8/20\mu s$)
- Working voltage: 5V
- Junction Capacitance: 60pF(Typ)
- Low clamping voltage
- Low leakage current
- IEC 61000-4-2 $\pm 30kV$ contact $\pm 30kV$ air
- IEC 61000-4-5 (Lightning) 30A (8/20 μs)

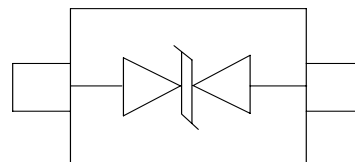
Applications

- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebooks and Handhelds
- Portable Instrumentation
- Peripherals
- Pagers Peripherals
- Desktop and Servers

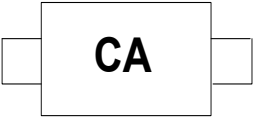
Mechanical Data

- 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
PESD5V0S1BA-N	SOD-323		3000 Tape & Reel	7 inches

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

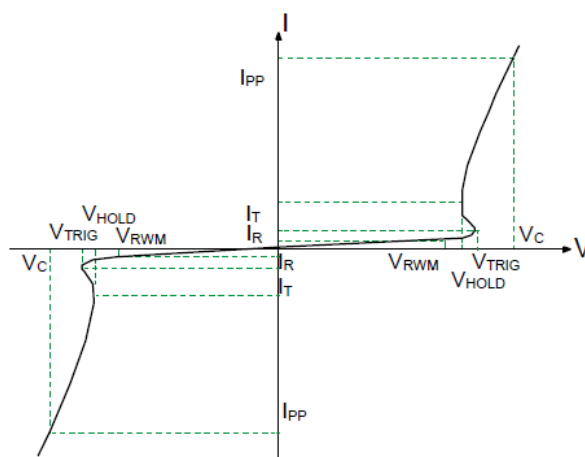
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	Ppk	450	W
Peak Pulse Current (8/20 μs)	IPP	30	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	VESD	± 30 ± 30	kV
Operating Temperature Range	TJ	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	Tstg	-55 to +150	$^{\circ}\text{C}$

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

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	VRWM				5	V
Breakdown Voltage	VBR	$I_T = 1\text{mA}(\text{Pin1-Pin2})$	6.0	7.0	8.0	V
Reverse Leakage Current	IR	$\text{VRWM} = 5.0\text{V}(\text{Pin2-Pin1})$			0.5	μA
Clamping Voltage	VC	$\text{IPP} = 10\text{A} (8 \times 20\mu\text{s pulse})$ (Pin1-Pin2)		9.0	11.0	V
Clamping Voltage	VC	$\text{IPP} = 30\text{A} (8 \times 20\mu\text{s pulse})$ (Pin1-Pin2)		12.0	15.0	V
Junction Capacitance	CJ	$\text{VR} = 0\text{V}, f = 1\text{MHz}$ (Pin1-Pin2)		60	100	pF

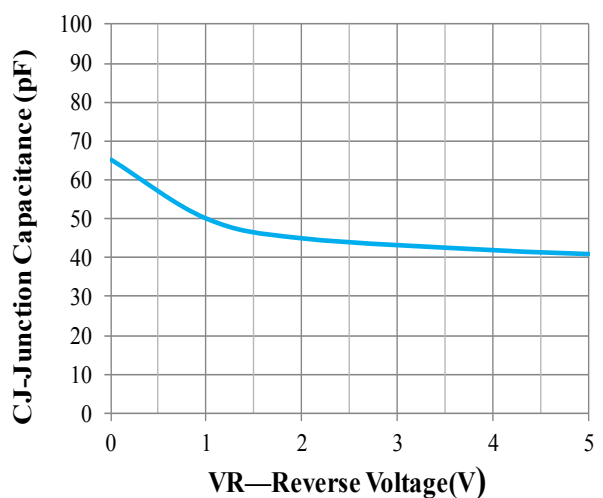
Electrical Parameters ($T_A = 25^{\circ}\text{C}$ unless otherwise noted)

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

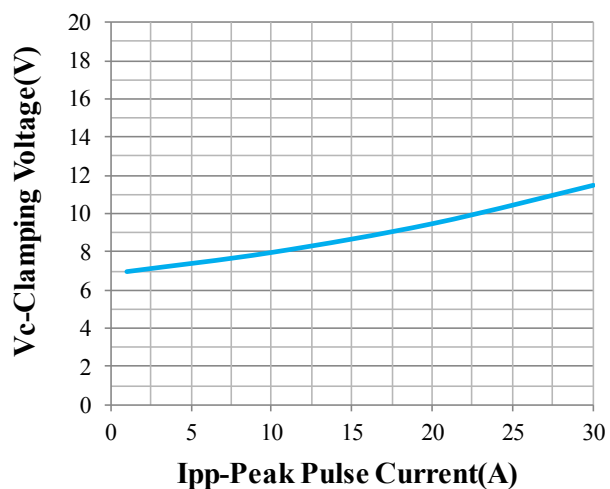




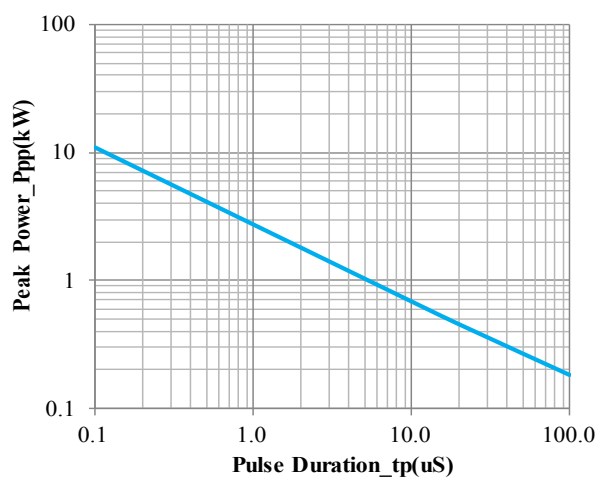
Typical Characteristics($T_A=25^{\circ}\text{C}$ unless otherwise Specified)



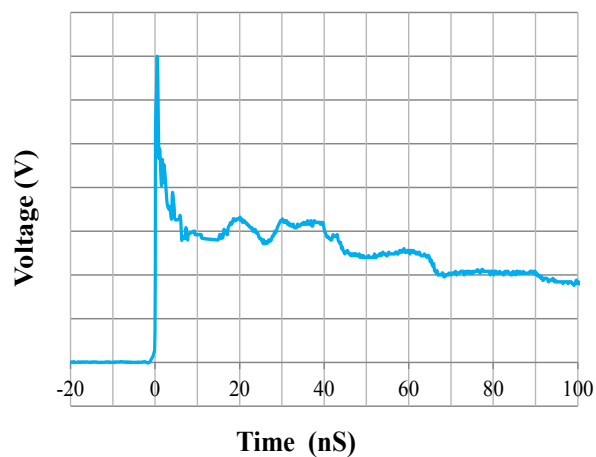
Junction Capacitance vs. Reverse Voltage



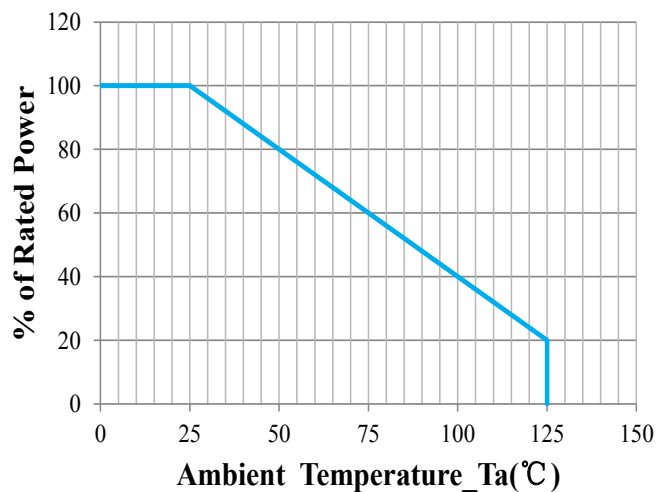
Clamping Voltage vs. Peak Pulse Current



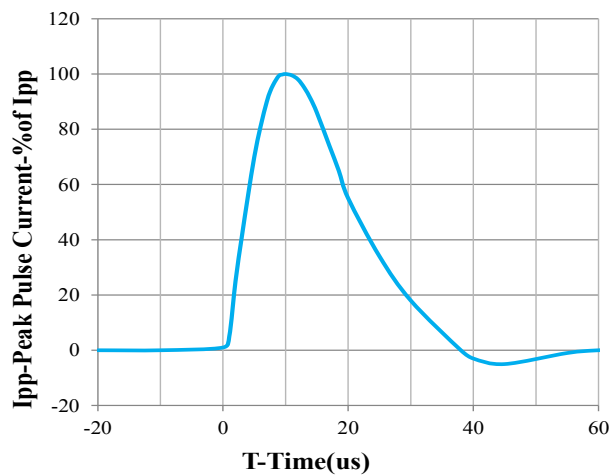
Peak Pulse Power vs. Pulse Time



IEC61000-4-2 Pulse Waveform



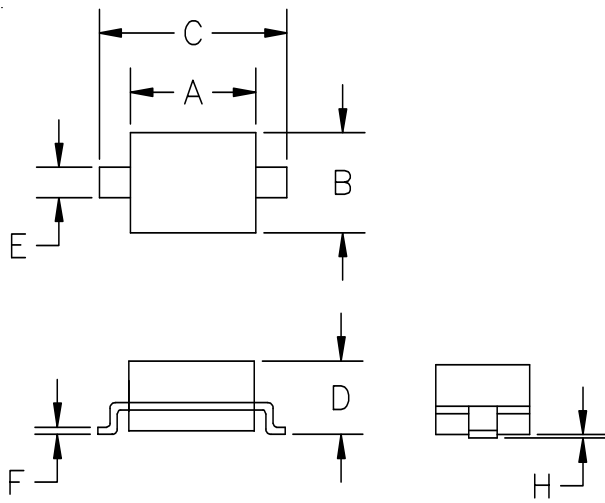
Power Derating Curve



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