

Features

Bi-directional ESD protection of one line
 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)

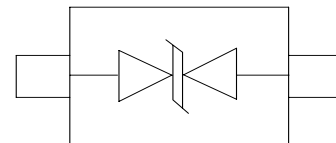
Applications

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

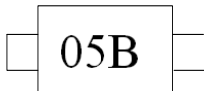
Mechanical Data

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,115-CN	SOD-323		3000 Tape & Reel	7 inches

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

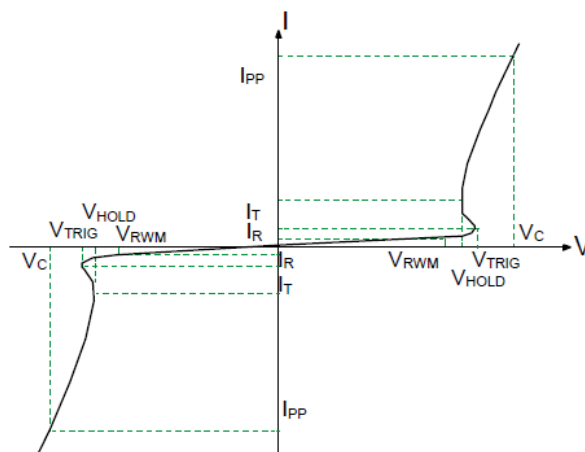
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	Ppk	450	W
Peak Pulse Current (8/20 μs)	IPP	30	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	VESD	± 30 ± 30	kV
Operating Temperature Range	TJ	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	Tstg	-55 to +150	$^{\circ}\text{C}$

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

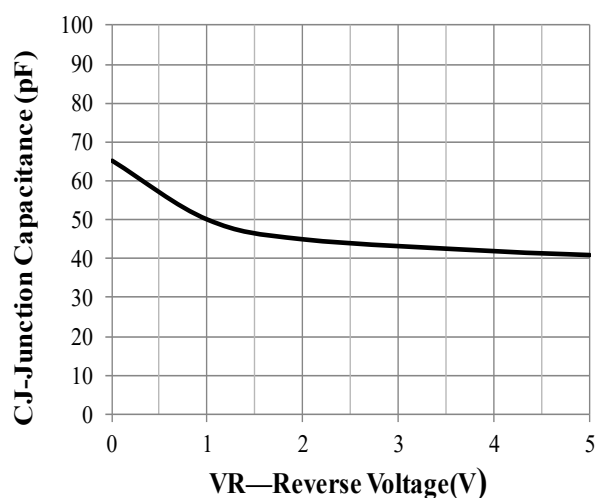
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	VRWM				5.0	V
Breakdown Voltage	VBR	$I_T = 1\text{mA}$	6.0	7.0	8.0	V
Reverse Leakage Current	IR	VRWM = 5V			0.5	μA
Clamping Voltage	VC	IPP = 10A (8 x 20 μs pulse)		9.0	11.0	V
Clamping Voltage	VC	IPP = 30A (8 x 20 μs pulse)		12.0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

Portion Electronics Parameter

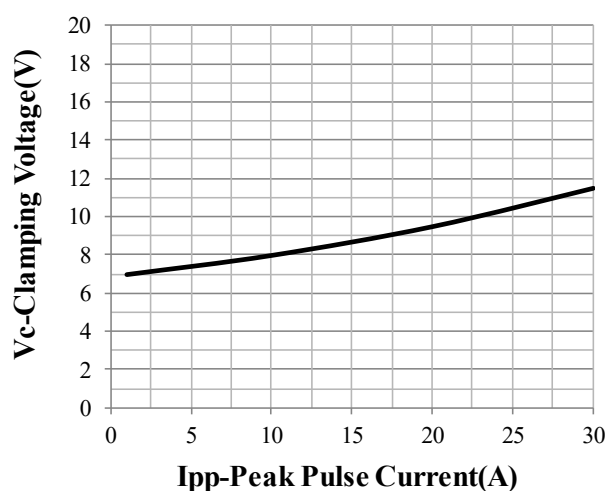
Symbol	Parameter
I_T	Test Current
IPP	Maximum Reverse Peak Pulse Current
Vc	Clamping Voltage @Ic



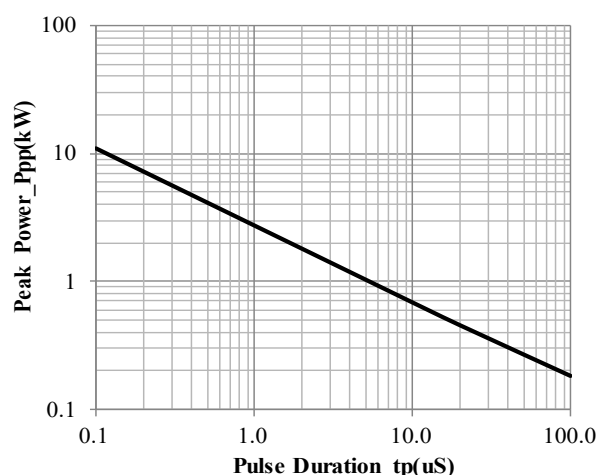
Typical Characteristics($T_A=25^{\circ}\text{C}$ unless otherwise Specified)



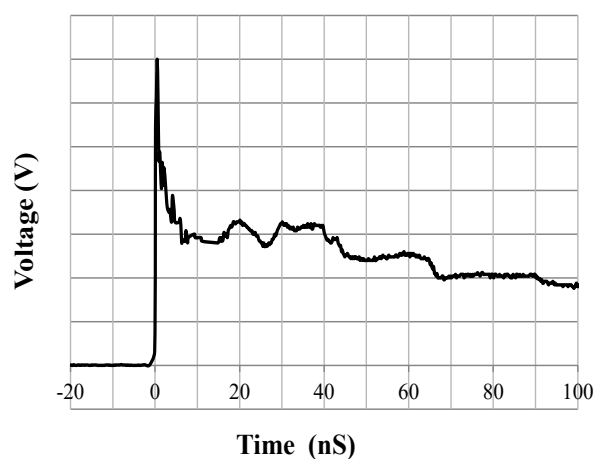
Junction Capacitance vs. Reverse Voltage



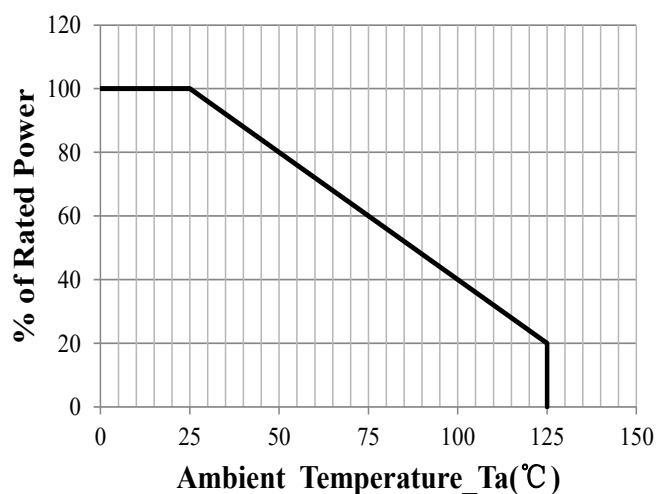
Clamping Voltage vs. Peak Pulse Current



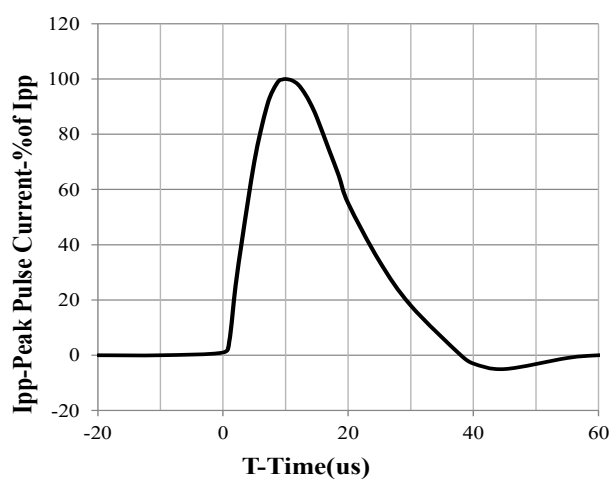
Peak Pulse Power vs. Pulse Time



IEC61000-4-2 Pulse Waveform

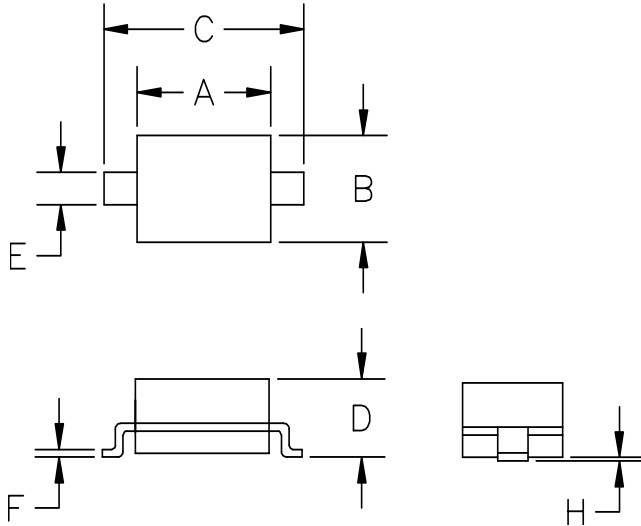


Power Derating Curve



8 X 20us Pulse Waveform

SOD-323 Package Outline Drawing



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

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