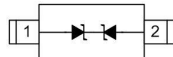


Features

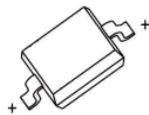
- 250 W (8/20 μ s) Peak Pulse Power
- Low Capacitance ESD Protection
- SOD-323 Package
- RoHS Compliant
- Matte Tin Lead finish (Pb-Free)
- Protect One High Speed Data Line
- Meet IEC61000-4-2 Level 4:

- Contact Discharge > 20 kV
- Air Discharge > 20 kV

PIN Diagram



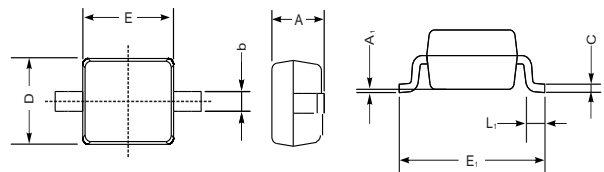
SOD-323



Applications

- Communication System
- Portable Instrumentation
- Audio and Video Equipment
- Computers and Peripherals
- USB 1.1, USB 1.0 Ports

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	—

Maximum Ratings (Ta = 25 °C)

Symbol	Parameter	Value	Unit
PPK	Peak Pulse Power	250	W
IPP	Peak Pulse Current	5	A
VESD (Contact)	Contact ESD Voltage per IEC61000-4-2	20	kV
VESD (Air)	Air ESD Voltage per IEC61000-4-2	20	kV
TJ	Junction Temperature	-55 to +150	°C
TSTG	Storage Temperature	-55 to +150	°C

PESD1LIN

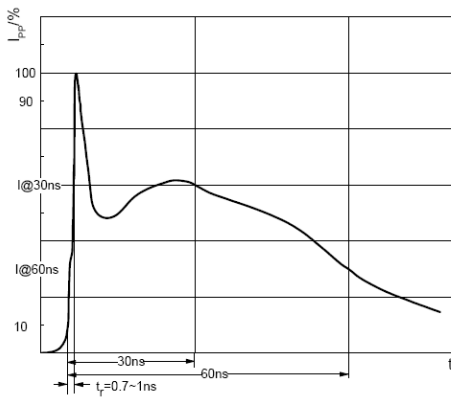
ESD standards compliance

IEC61000-4-2 Standard

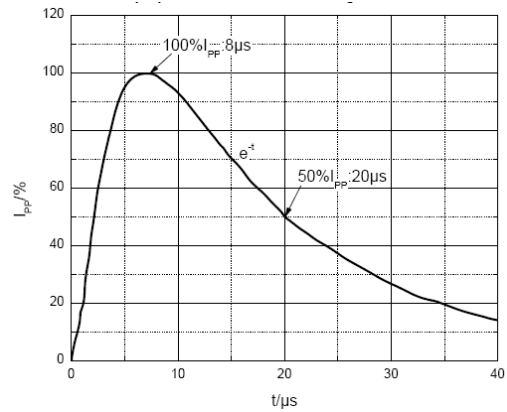
Contact Discharge		Air Discharge	
Level	Test Voltage kV	Level	Test Voltage kV
1	2	1	2
2	4	2	4
3	6	3	8
4	8	4	15

JESD22-A114-B Standard

ESD Class	Human Body Discharge V
0	0~249
1A	250~499
1B	500~999
1C	1000~1999
2	2000~3999
3A	4000~7999
3B	8000~15999



ESD pulse waveform according to IEC61000-4-2

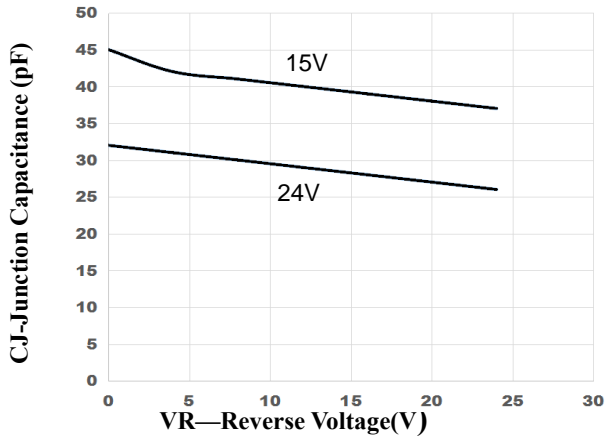


8/20µs pulse waveform according to IEC 61000-4-5

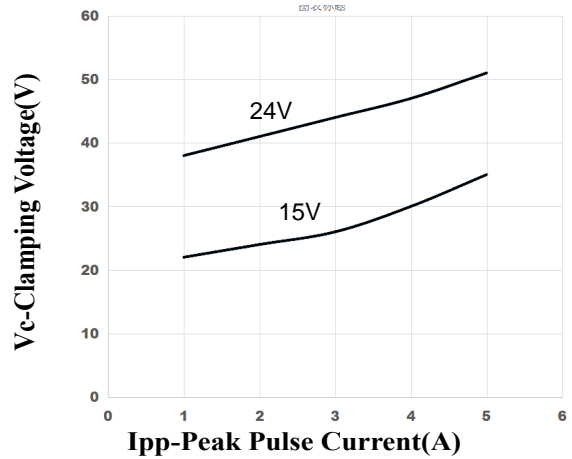
Electrical Characteristics (Ta = 25°C)

Symbol	Parameter	Test Condition	Pin 1 to Pin 2 (15V TVS)			Pin 2 to Pin 1 (24V TVS)			Units
			Min	Typ	Max	Min	Typ	Max	
V _{RWM}	Reverse Working Voltage				15		24		V
V _{BR}	Reverse Breakdown Voltage	I _T = 1mA	16		19	26.5		31	V
I _R	Reverse Leakage Current	V _R = V _{RWM}			0.2			0.2	µA
V _{C1}	Clamping Voltage 1	I _{PP} = 1A, t _p = 8/20µs			22			38	V
V _{C2}	Clamping Voltage 2	I _{PP} = 5A, t _p = 8/20µs			35			51	V
C _{J1}	Junction Capacitance 1	V _R = 0V, f = 1MHz			45			32	pF
C _{J2}	Junction Capacitance 2	V _R = V _{RWM} , f = 1MHz		23			20		pF

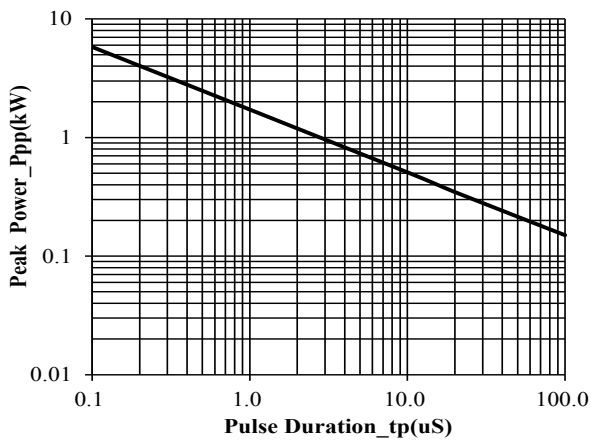
RATING AND CHARACTERISTIC CURVES (PED1LIN)



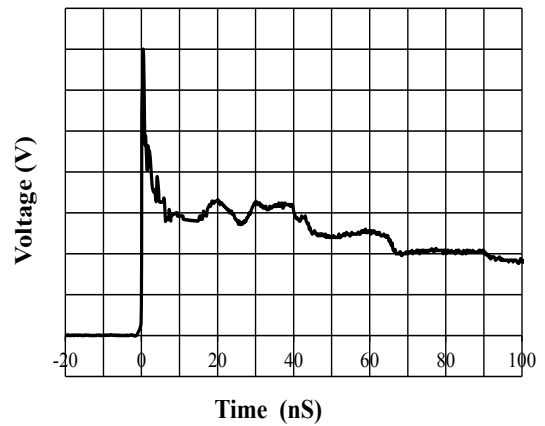
Junction Capacitance vs. Reverse Voltage



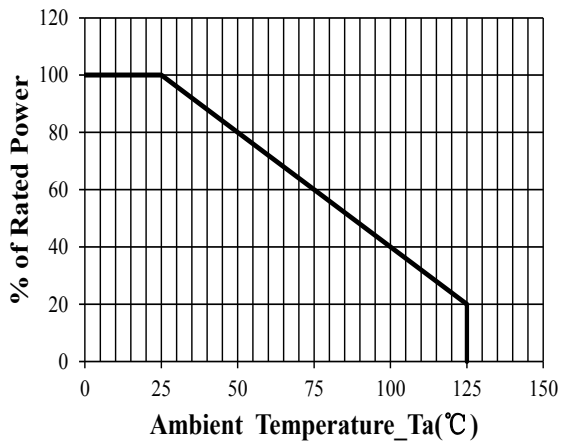
Clamping Voltage vs. Peak Pulse Current



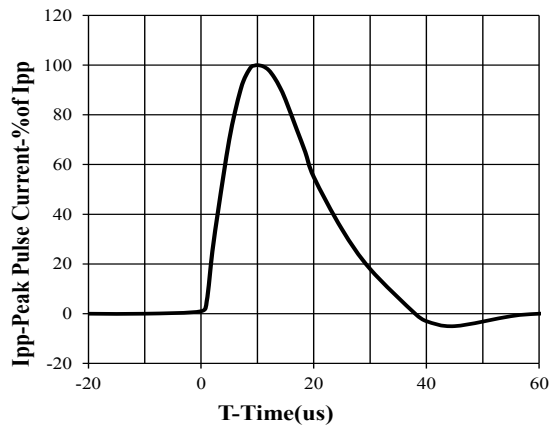
Peak Pulse Power vs. Pulse Time



IEC61000-4-2 Pulse Waveform



Power Derating Curve



8 X 20us Pulse Waveform