

Features

250W (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:

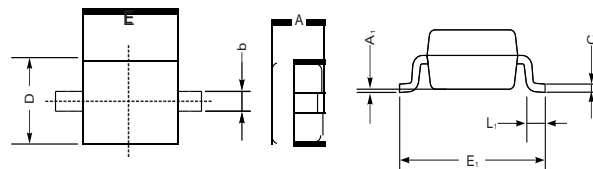
Contact Discharge > 20kV

Air Discharge > 20kV

Applications

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

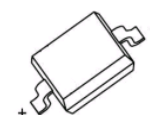
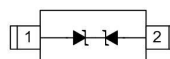
SOD323



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	—

SOD-323

PIN Diagram



Maximum Ratings (Ta = 25)

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

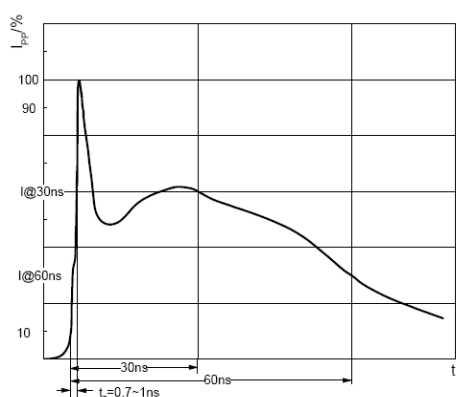
ESD standards compliance

IEC61000-4-2 Standard

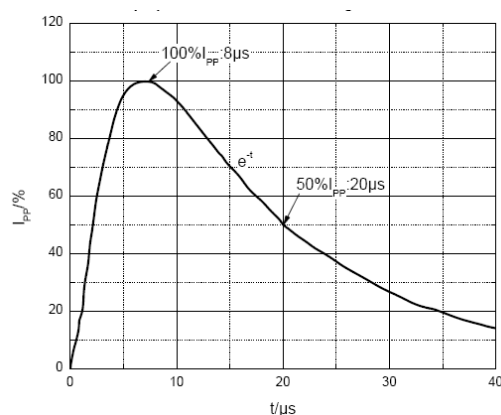
Contact Discharge		Air Discharge	
Level	Test Voltage kV	Level	Test Voltage kV
1	2	1	2
2	4	2	4
3	6	3	8
4	8	4	15

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

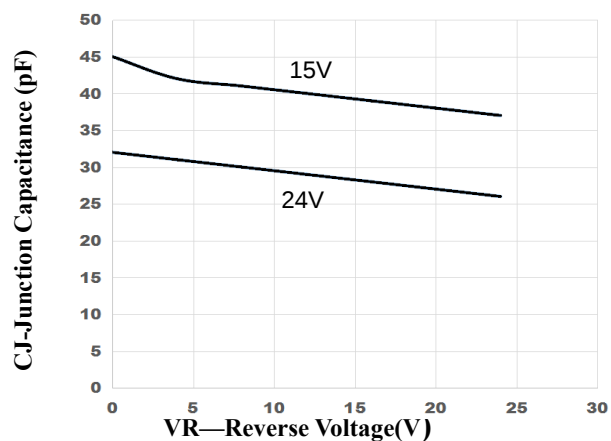


8/20μs pulse waveform according to IEC 61000-4-5

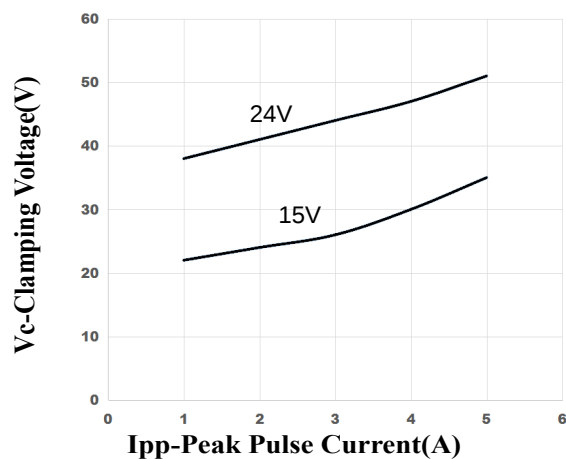
Electrical Characteristics (Ta = 25)

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

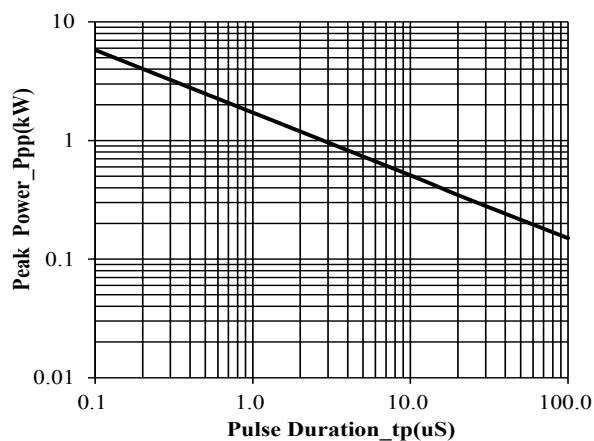
RATING AND CHARACTERISTIC CURVES (PED1LIN)



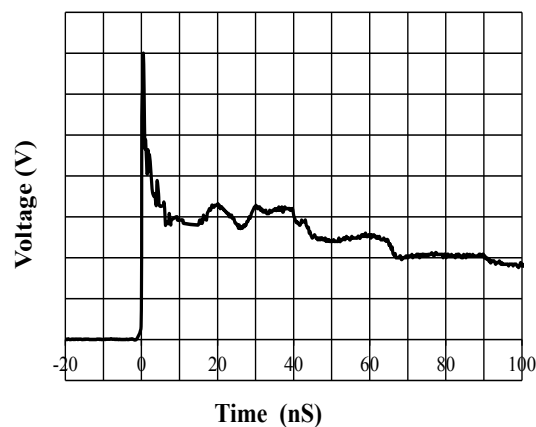
Junction Capacitance vs. Reverse Voltage



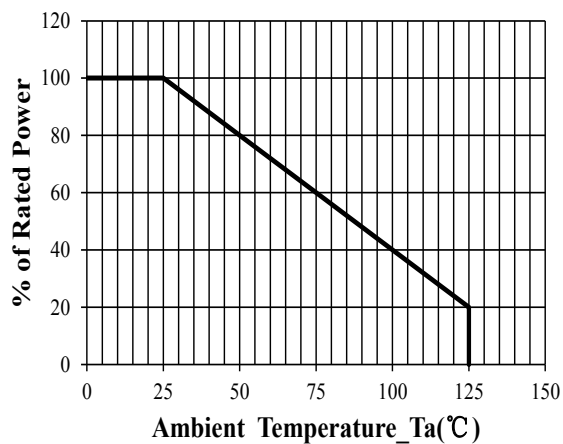
Clamping Voltage vs. Peak Pulse Current



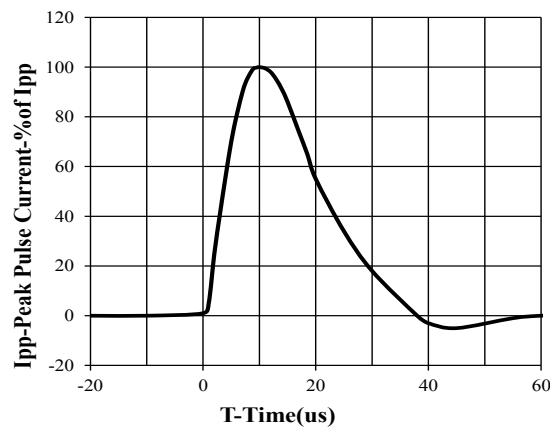
Peak Pulse Power vs. Pulse Time



IEC61000-4-2 Pulse Waveform



Power Derating Curve



8 X 20us Pulse Waveform

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