

Electro-static Discharge (ESD)

SSD05

Features

- 350 Watts Peak Pulse Power per line($t_p=8/20\mu s$)
 - IEC 61000-4-2 Level 4 Protection
 - Bidirectional ESD protection of one I/O line
 - Low clamping voltage
 - Low leakage current :typically 1- 5 μA
 - Response Time is Typically $<1ns$



IEC COMPATIBILITY (EN61000-4)

- IEC 61000-4-2 (ESD) $\pm 15kV$ (air), $\pm 8kV$ (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)

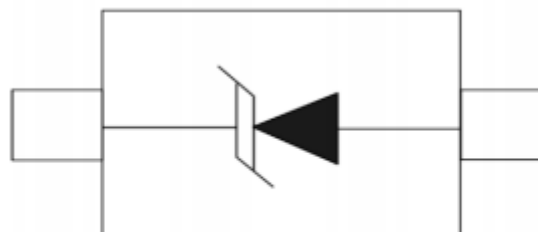
Mechanical Characteristics

- JEDEC SOD-323 package
- Molding compound flammability rating:
UL 94V-0
- Marking : Marking Code
- Packaging : Tape and Reel per EIA 481
- RoHS/ISO/UL Compliant

Applications

- Cellular Handsets & Accessories
- Personal Digital Assistants (PDAs)
- Notebooks & Handhelds
- Portable Instrumentation
- Digital Cameras
- MP3 players

Schematic & PIN Configuration

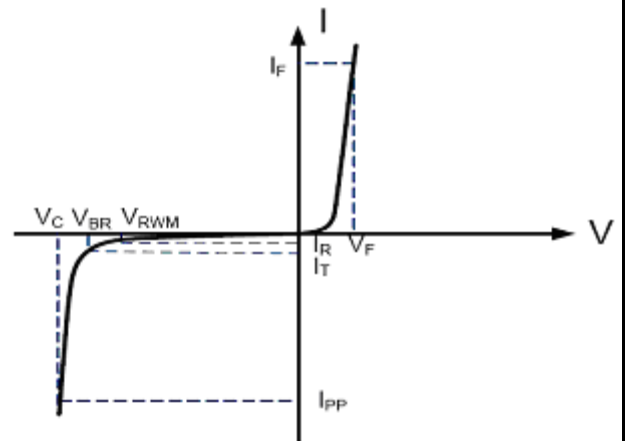


SOD-323 (Top View)

Absolute Maximum Rating			
Rating	Symbol	Value	Units
Electrostatic discharge Voltage (See Note1,2)	V _{ESD}	8KV(contact)	volts
		15KV(air)	
Operating Temperature	T _J	-55to+150	°C
Storage Temperature	T _{STG}	-55to+150	°C

Electrical Parameters (T=25°C)

Symbol	Parameter
I _{PP}	Maximum Reverse Peak Pulse Current
V _C	Clamping Voltage @ I _{PP}
V _{RWM}	Working Peak Reverse Voltage
I _R	Maximum Reverse Peak Pulse Current @ V _{RWM}
V _{BR}	Breakdown Voltage @ I _T
I _T	Test Current
I _F	Forward Current
V _F	Forward Voltage @ I _F



Electrical Characteristics

Part No.	V _{RWM} (V)	I _R (μ A)	V _{BR} (V)	C(PF)	P _{PK} (W)	Package
SSD05	5.0	1.0	6.2-7.2	250	350	SOD323

Typical Characteristics

Table 1: IEC 61000-4-2 Spec.

IEC 61000-4-2 Spec.

Level	Test Voltage (kV)	First Peak Current (A)	Current at 30 ns (A)	Current at 60 ns (A)
1	2	7.5	4	2
2	4	15	8	4
3	6	22.5	12	6
4	8	30	16	8

Figure 1: IEC61000-4-2 Waveform

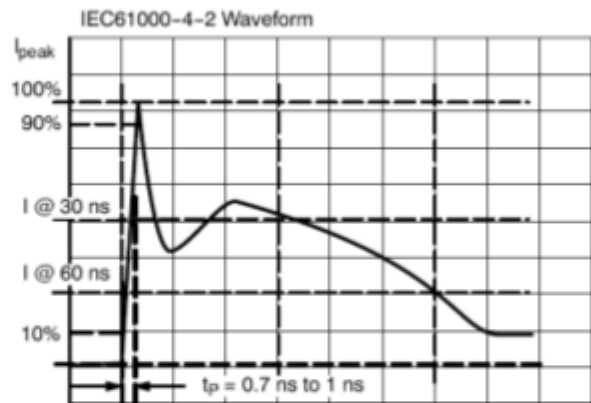


Figure 2: ESD Test Setup

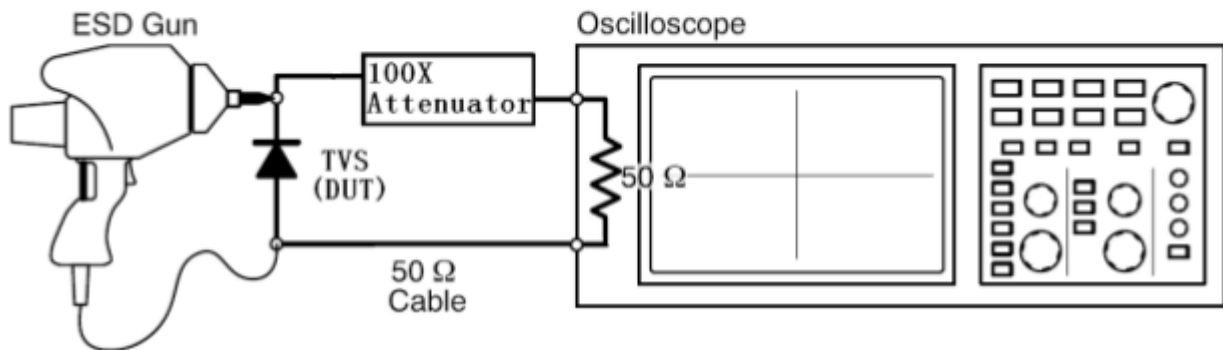
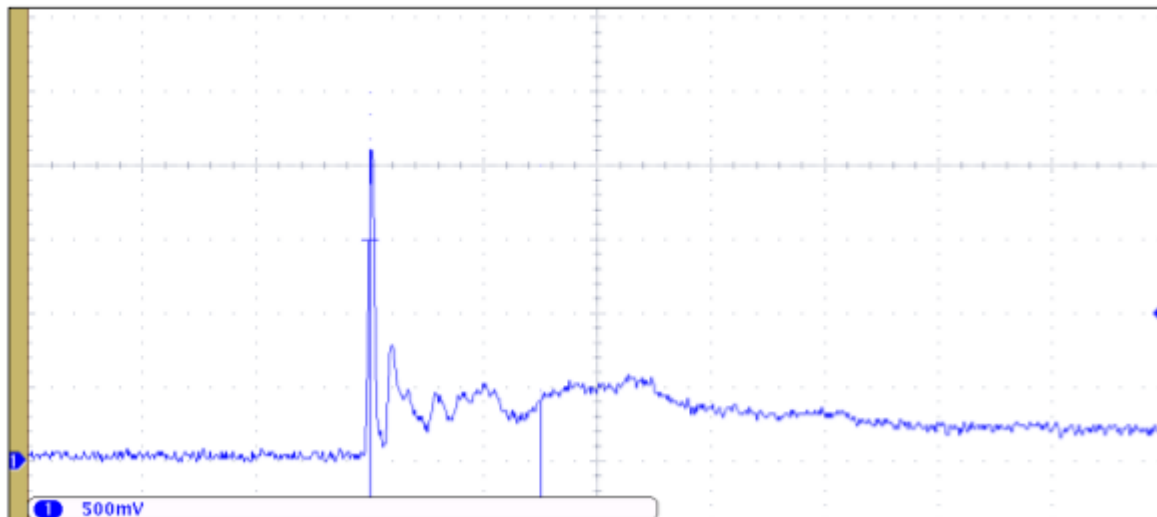
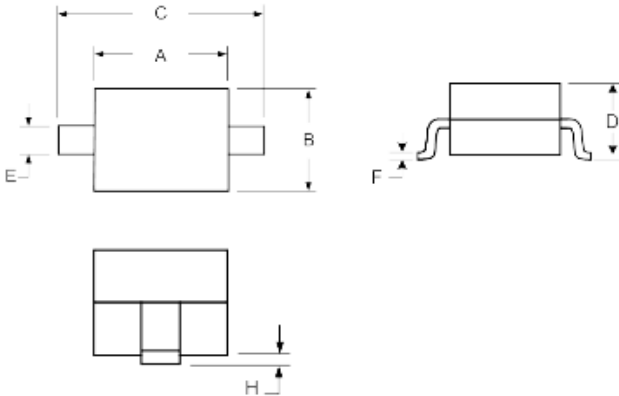


Figure 3: ESD Clamping(8kV Contact per IEC 61000-4-2)



Outline Drawing – SOD-323

PACKAGE OUTLINE

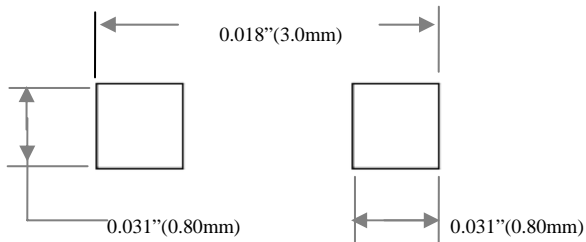


SOD-323

DIMENSIONS

SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	1.60	1.90	0.063	0.075
B	1.15	1.45	0.045	0.057
C	2.39	2.70	0.094	0.106
D	0.92	1.10	0.036	0.043
E	0.25	0.40	0.010	0.016
F	0.10	0.20	0.004	0.008
H	-	0.10	-	0.004

MOUNTING PAD



Notes:

- 1、Controlling Dimensions in Millimeters.
- 2、Dimensions are exclusive of mold flash and metal burrs.

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