上海晟芯微电子有限公司

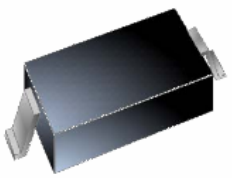
Shanghai Senchip Microelectronics Co., Ltd

Electro-static Discharge (ESD)

SSDxxC Series

Features

- 300 Watts Peak Pulse Power per line(tp=8/20us)
- IEC 61000-4-2 Level 4 Protection
- Bidirectional ESD protection of one I/O line
- Low clamping voltage
- Low leakage current :typically1- 20 uA
- Response Time is Typically＜1ns



SOD-323

IEC COMPATIBILITY (EN61000-4)

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

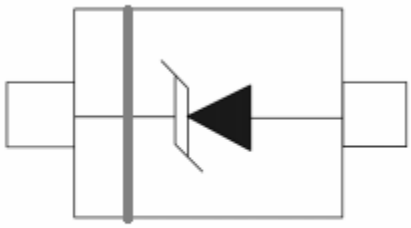
Mechanical Characteristics

- 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

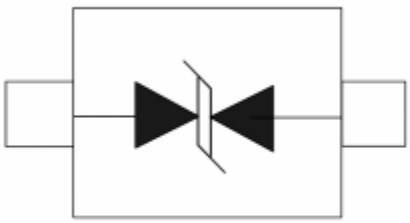
Applications

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

Schematic & PIN Configuration



UNIDIRECTIONAL

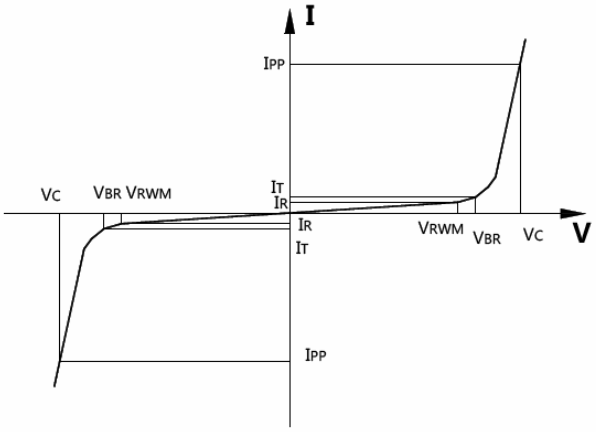


BIDIRECTIONAL

Absolute Maximum Rating			
Rating	**Symbol**	**Value**	**Units**
Electrostatic discharge Voltage (See Note1,2)	V_{ESD}	8KV(contact) 15KV(air)	volts
Operating Temperature	T_J	-55to+150	℃
Storage Temperature	T_{STG}	-55to+150	℃

Electrical Parameters (T=25℃)

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
C_O	Typical Off-state Capacitance



Electrical Characteristics

Part No.	V_{RWM}(V)	I_R(μA)	V_{BR}(V) Min	C_O(PF)	P_{PK}(W)	Package
SSD03C	3.3	20.0	4.0	120	300	SOD323
SSD05C	5.0	5.0	5.6	120	300	SOD323
SSD08C	8.0	1.0	8.5	120	300	SOD323
SSD12C	12.0	1.0	13.3	90	300	SOD323
SSD15C	15.0	1.0	16.7	90	300	SOD323
SSD24C	24.0	1.0	26.7	35	300	SOD323
SSD36C	36.0	1.0	40.0	35	300	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

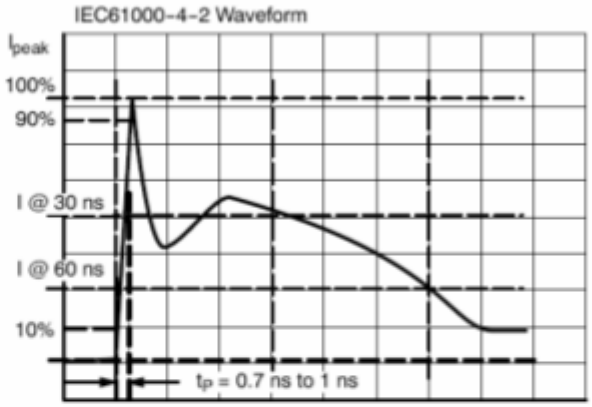


Figure 2: ESD Test Setup

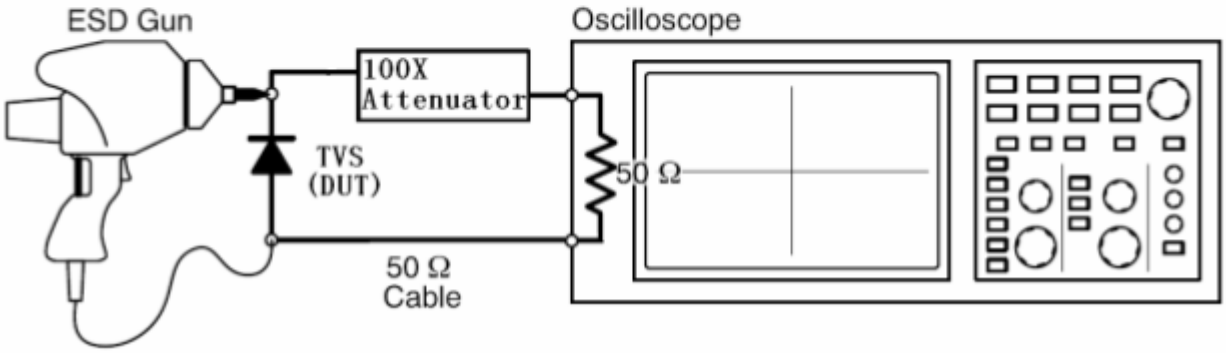
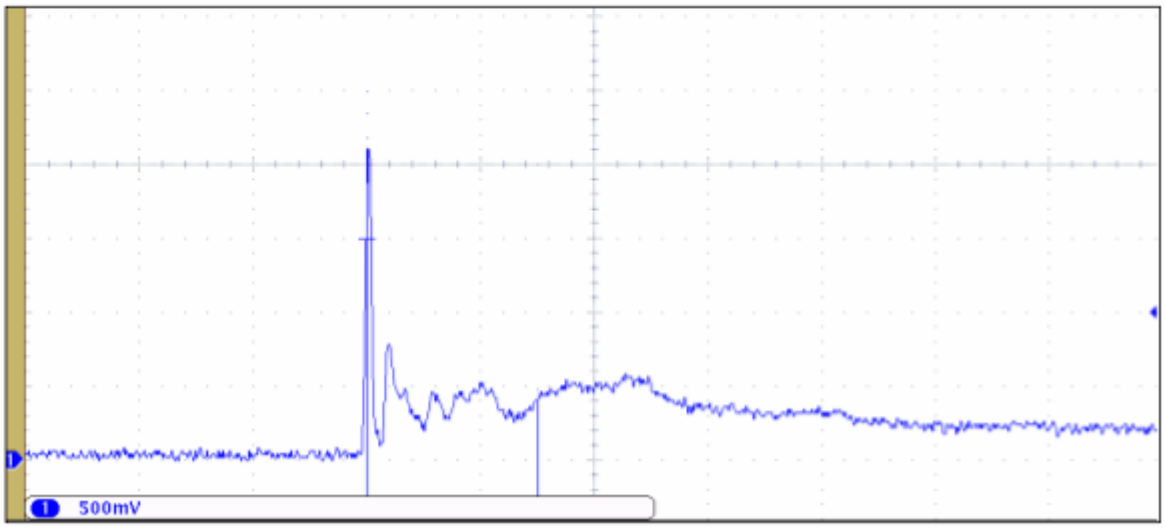
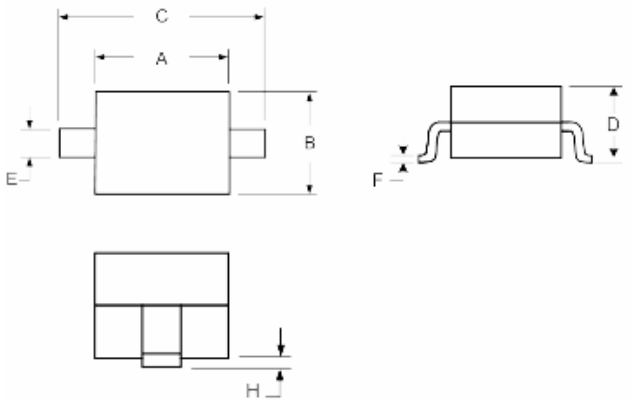


Figure 3: ESD Clamping(8kV Contact per IEC 61000-4-2)

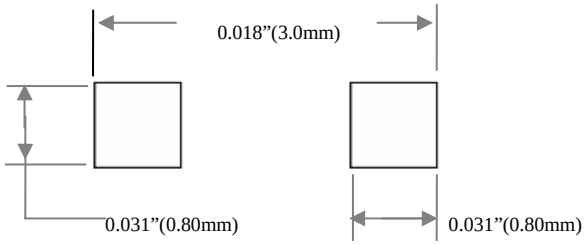


Outline Drawing – SOD-323

PACKAGE OUTLINE



MOUNTING PAD



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

Notes:

1、Controlling Dimensions in Millimeters.

2、Dimensions are exclusive of mold flash and metal burrs.

Ordering Information

Device	Qty per Reel	Reel Size
SSDxxC	3000	7inch