

WE05D3LC-B

Transient Voltage Suppressor

Features

- IEC 61000-4-2 Level 4 Protection
- Bidirectional ESD protection of one I/O line
- Ultra low capacitance: typically 2.5pF
- Low clamping voltage
- Working voltage: 5V
- Low leakage current: typically 5 nA
- Solid-state silicon-avalanche technology



IEC COMPATIBILITY (EN61000-4)

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

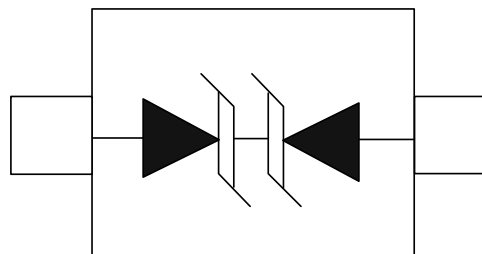
Mechanical Characteristics

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

Applications

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

Schematic & PIN Configuration

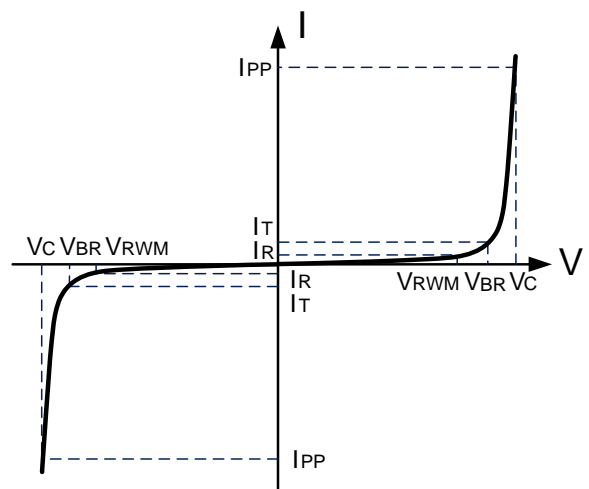


SOD-323 (Top View)

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

Electrical Parameters (T=25°C)

Symbol	Parameter
V _{RWM}	Working Peak Reverse Voltage
I _R	Maximum Reverse Leakage 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

WE05D3LC-B						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V _{RWM}				5.0	V
Reverse Breakdown Voltage	V _{BR}	I _T =1mA	6.0			V
Reverse Leakage Current	I _R	V _{RWM} =5V, T=25°C		5	50	nA
Junction Capacitance	C _j	V _R = 0V, f = 1MHz		2.5	3.5	pF
		V _R = 5V, f = 1MHz		1.5	2.0	
Clamping Voltage (See Note3)	V _c	8KV (contact)	See Figure3			V

Note1: ESD Pulse Waveform according to IEC 61000-4-2 , see Table1 and Figure1

Note2: ESD test Setup see Figure2.

Note3: The clamping Voltage data is taken with a 100x attenuator.

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

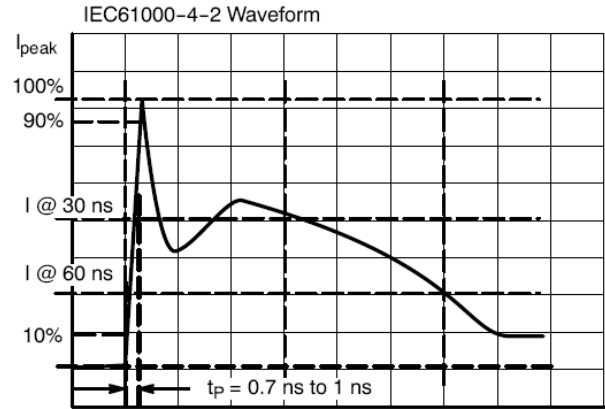


Figure 2: ESD Test Setup

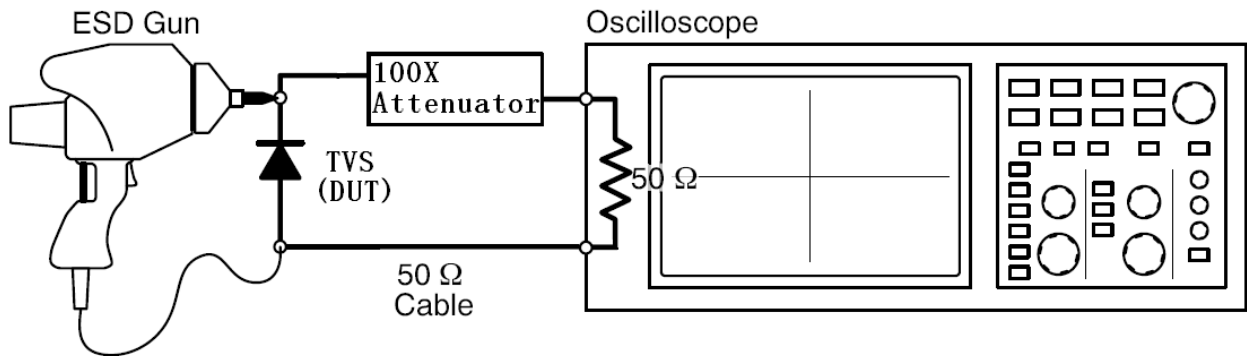
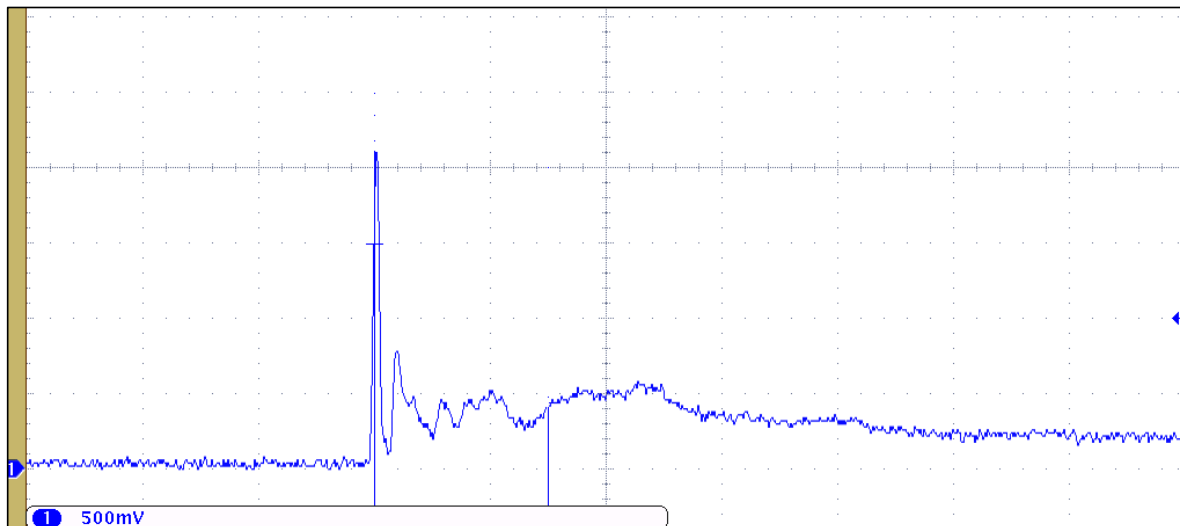


Figure 3: ESD Clamping(8kV Contact per IEC 61000-4-2)



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

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

TAPE & REEL ORDERING NOMENCLATURE

- Surface mount product is taped and reeled in accordance with EIA-481.

Marking Codes

Part Number	WE05D3LC-B
Marking Code	5LB

