

WE05D9BC-B

Transient Voltage Suppressor

Features

- Small Body Outline Dimensions:
0.039" x 0.024" (1.0 mm x 0.60 mm)
- Low Body Height: 0.06" (0.40 mm) Max
- Protects one I/O or power line
- Working Voltage: 5 V
- Low Leakage Current
- Response Time is Typically < 1 ns



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)

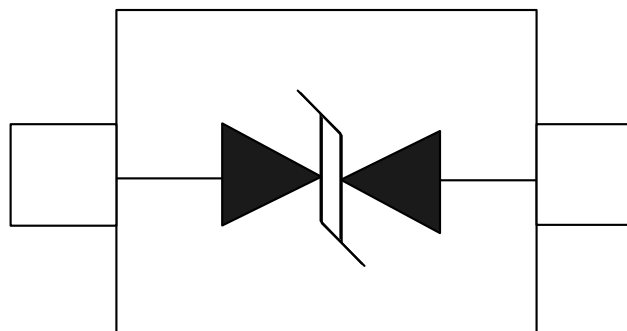
Mechanical Characteristics

- JEDEC SOD-923 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

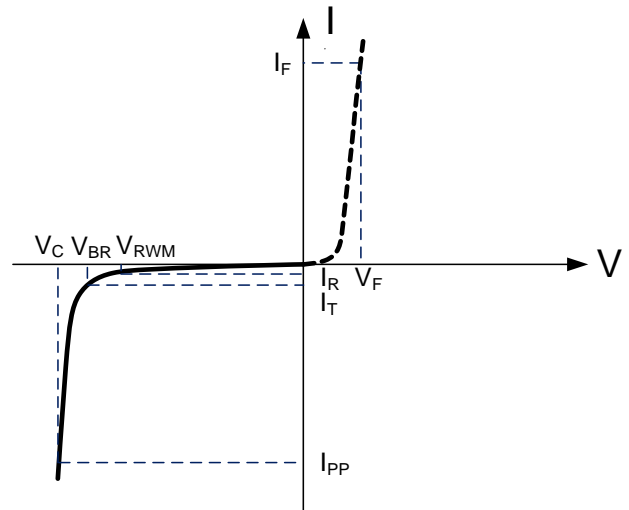


SOD-923 (Top View)

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

WE05D9BC-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			1	µA
Junction Capacitance	C _j	V _R = 0V, f = 1MHz		3.0		pF
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 tests 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

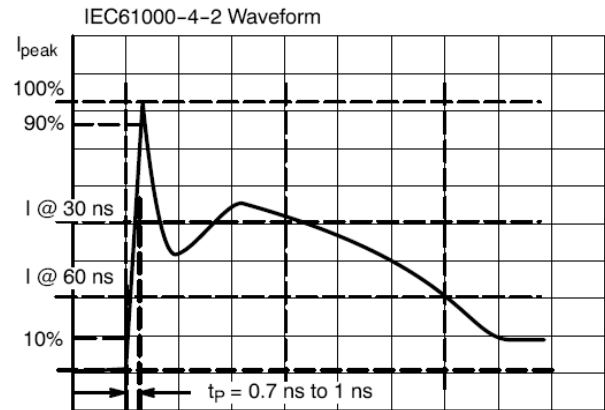


Figure 2: ESD Test Setup

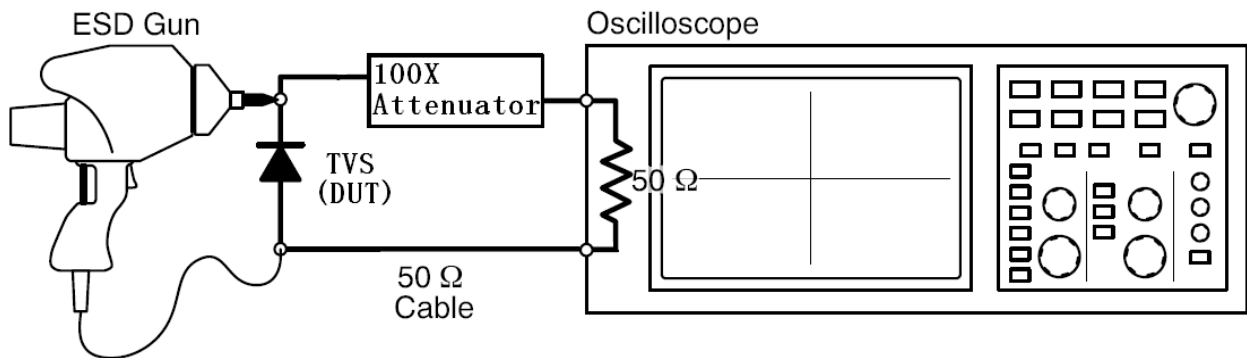
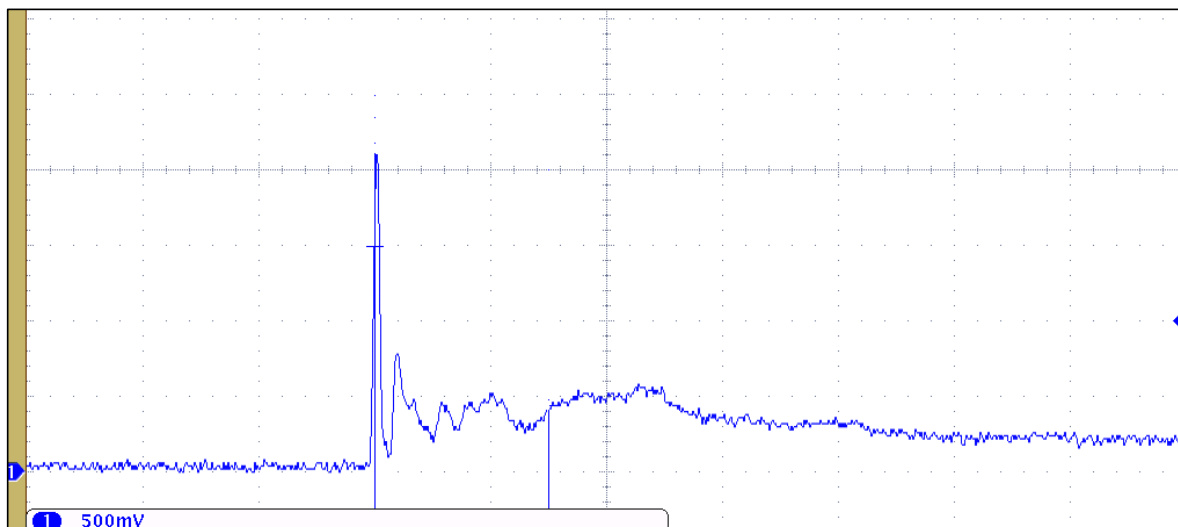
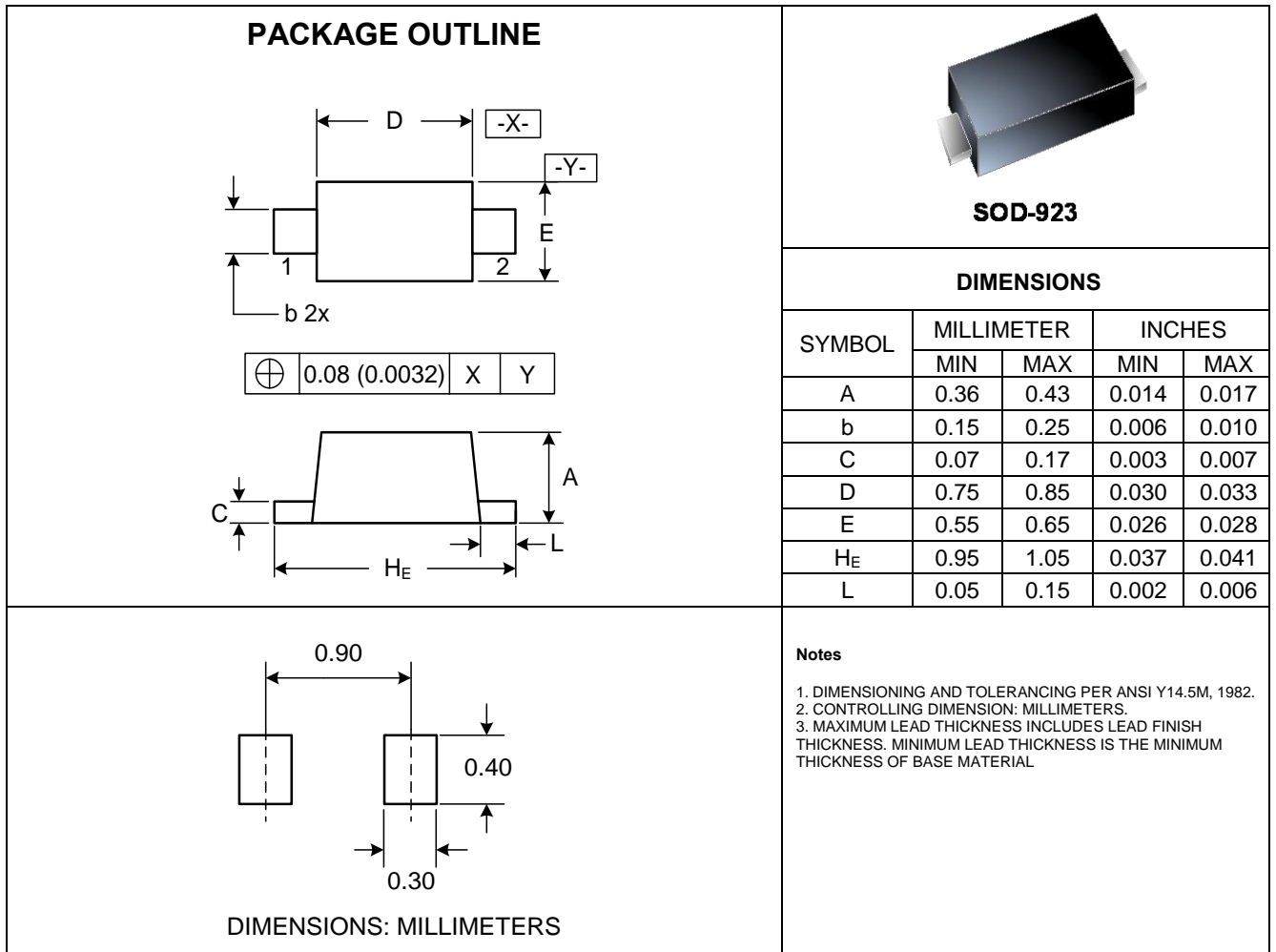


Figure 3: ESD Clamping(8kV Contact per IEC 61000-4-2)



Outline Drawing – SOD-923



Marking Codes



Pin Style: 1. Cathode 2. Anode