

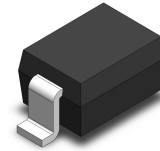
Transient Voltage Suppressors for ESD Protection

SE03D3W11GW

Features

- ◆ Working voltage: 3.3V
- ◆ Low leakage current: 0.9 μ A @ V_{RWM}
- ◆ Low clamping voltage
- ◆ Response Time is < 1 ns

SOD-323



Applications

- ◆ Cell Phone Handsets and Accessories
- ◆ Microprocessor based equipment
- ◆ Personal Digital Assistants (PDA's)
- ◆ Notebooks, Desktops, and Servers

Pin Configuration



Mechanical Characteristics

- ◆ SOD-323 Package
- ◆ Molding Compound Flammability Rating: UL 94V-0
- ◆ Quantity Per Reel: 3,000pcs
- ◆ Reel Size: 7 inch

Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$, RH=45%-75%, unless otherwise noted)

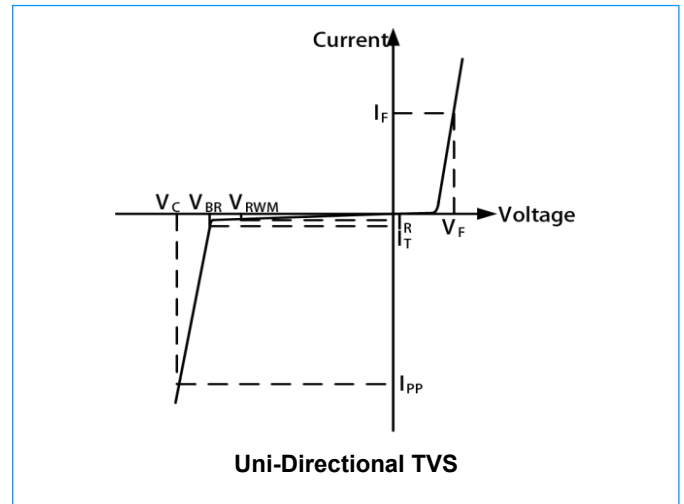
Symbol	Parameter	Value	Units
T_{LST}	Lead Soldering Temperature	260 (10sec)	$^{\circ}\text{C}$
T_{STG}	Storage Temperature Range	-55 to +150	$^{\circ}\text{C}$
V_{ESD}	ESD per IEC 61000-4-2(Air)	± 30	KV
	ESD per IEC 61000-4-2 (Contact)	± 30	

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I-V Curve Characteristics

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 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 (@ $T_A=25^\circ\text{C}$ Unless Otherwise Specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Working Voltage	V_{RWM}	--	--	--	3.3	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	5	--	--	V
Reverse Leakage Current	I_R	$V_{RWM} = 3.3\text{V}$, $T=25^\circ\text{C}$	--	--	0.9	μA
Clamping Voltage	V_C	$I_{PP} = 11.2\text{A}$, $t_P = 8/20\mu\text{s}$	--	12	--	V
Junction Capacitance	C_J	$V_{RWM} = 0\text{V}$, $f = 1\text{MHz}$	--	105	--	pF

Characteristic Curves

Fig 1. 8/20 μs Waveform per IEC61000-4-5

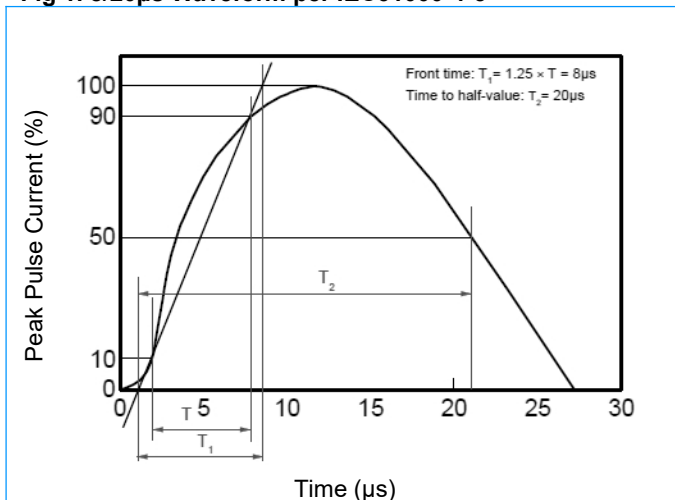
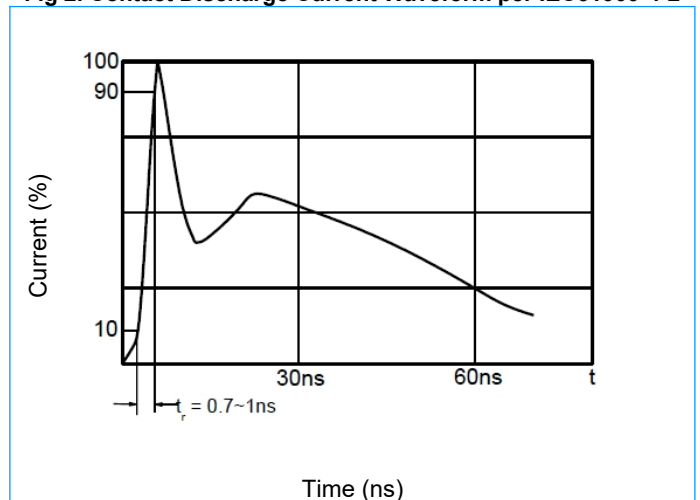


Fig 2. Contact Discharge Current Waveform per IEC61000-4-2



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Characteristic Curves (Continue)

Fig 3. ESD Clamping Voltage Screenshot
Positive 8 kV Contact per IEC61000-4-2

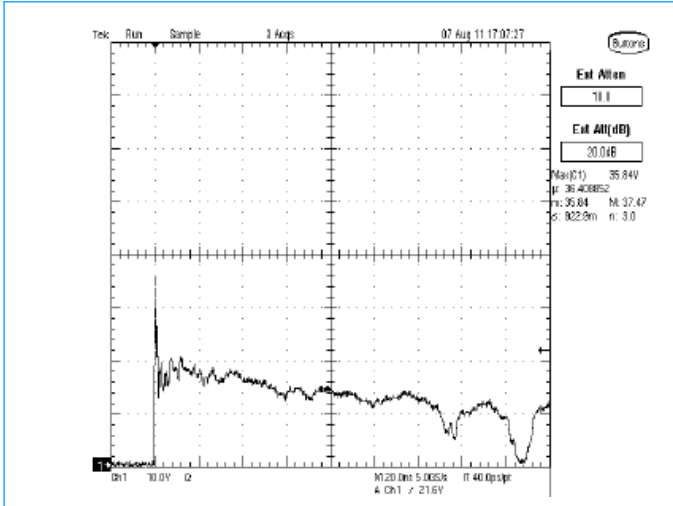
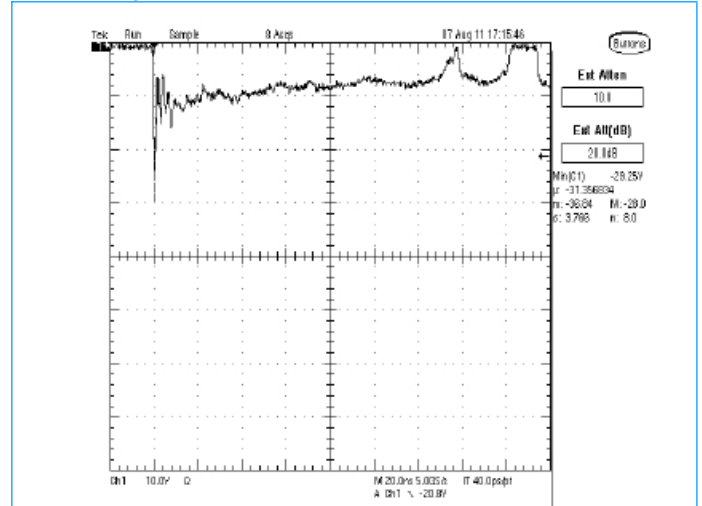
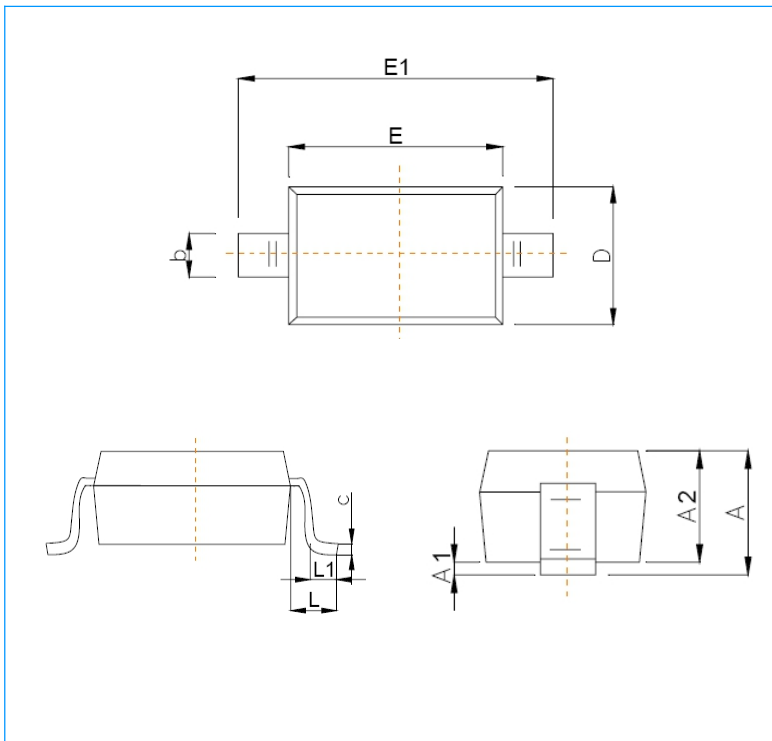


Fig 4. ESD Clamping Voltage Screenshot
Negative 8 kV Contact per IEC61000-4-2



SOD-323 Package Outline & Dimensions



Symbol	Dimensions in Millimeters	
	Min.	Max.
A	--	1.00
A1	0.00	0.10
A2	0.80	0.90
b	0.25	0.35
c	0.08	0.15
D	1.20	1.40
E	1.60	1.80
E1	2.50	2.70
e	1.80	2.04
L	0.475 REF	
L1	0.25	0.40
θ	0°	8°

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