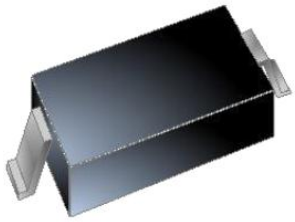
Transient Voltage Suppressors for ESD Protection

Features

- Working voltage : 36V
- Low leakage current: 1μA @ V_{RWM}
- Low clamping voltage
- Response Time is < 1 ns

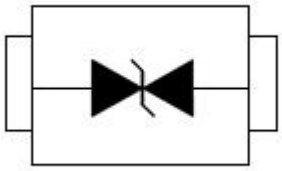
SOD-323



Applications

- Laptop Computers
- Cellular Phones
- Digital Cameras
- Personal Digital Assistants (PDA's)

Pin Configuration



Mechanical Characteristics

- SOD-323 Package
- Molding Compound Flammability Rating : UL 94V-0
- Quantity Per Reel : 3,000pcs
- Reel Size : 7 inch
- Marking Code: 2N

Absolute Maximum Rating

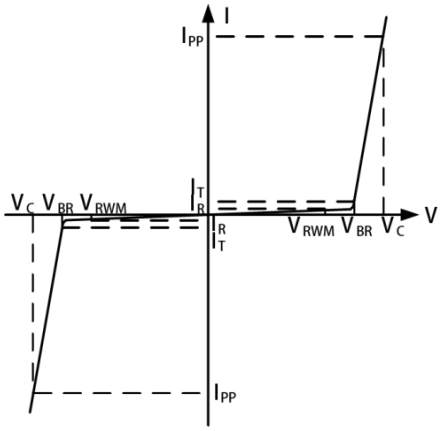
Symbol	Parameter	Value	Units
T_{LST}	**Lead Soldering Temperature**	260 (10sec)	℃
T_{STG}	**Storage Temperature Range**	-55 to +150	℃
T_{OPT}	**Operating Temperature Range**	-55 to +150	℃
V_{ESD}	**ESD per IEC 61000-4-2(Air)** **ESD per IEC 61000-4-2 (Contact)**	±30 ±30	KV

Transient Voltage Suppressors for ESD Protection

SE36D3S01GZ

I-V Curve Characteristics

Symbol	Parameter
I_{PP}	Maximum 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



Bi-Directional TVS

Electrical Characteristics (@T_A=25℃ Unless Otherwise Specified)

Symbol	Test Condition	Minimum	Typical	Maximum	Units
V_{RWM}	--	--	--	36	V
I_R	V_{RWM}=36V, T=25℃	--	--	1	μA
V_{BR}	I_T = 1mA	39.6	--	48	V
V_C	I_{PP}=5A, t_p=8/20μs	--	60	--	V
C_J	V_R=0V, f=1MHz	--	20	--	pF

Characteristic Curves

Fig1. 8/20μs Pulse Waveform

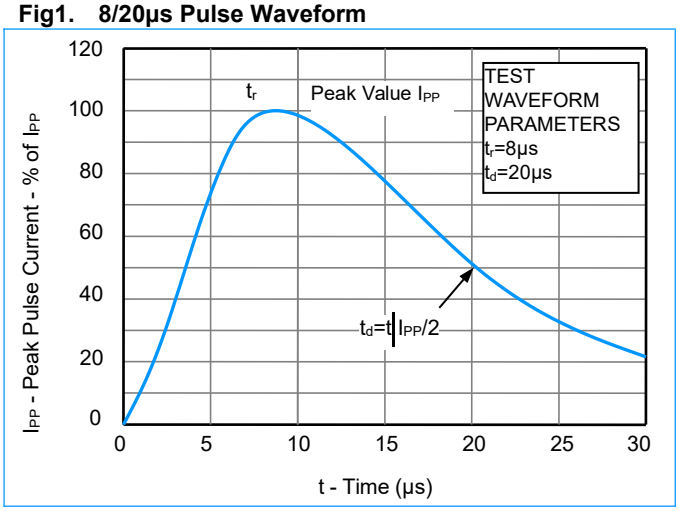
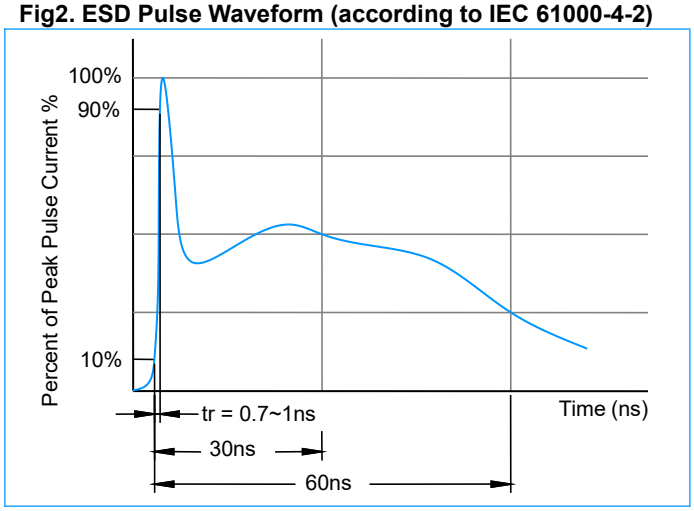


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)



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SE36D3S01GZ

Characteristic Curves (Continue)

Fig3. ESD Clamping (+8KV Contac per IEC61000-4-2)

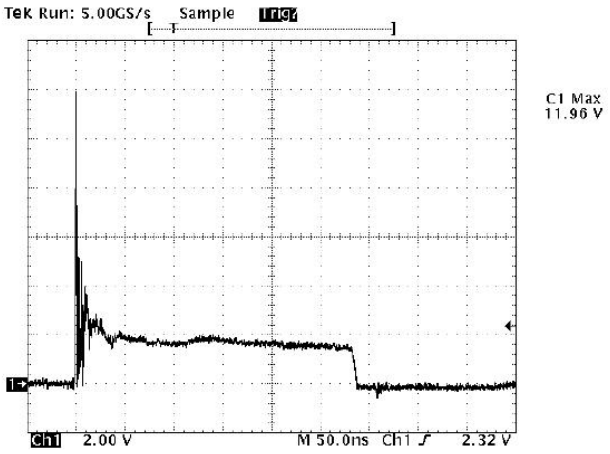
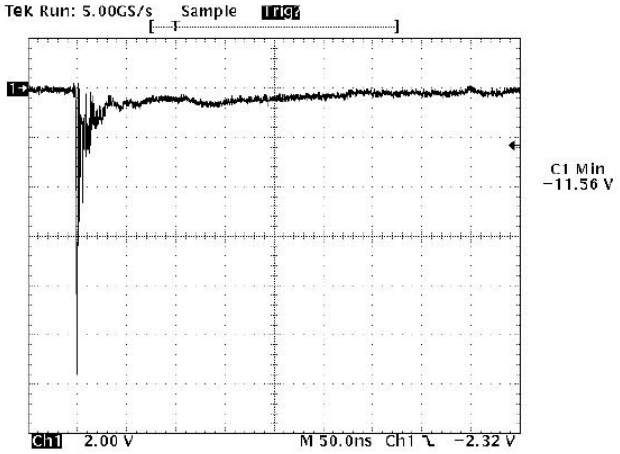
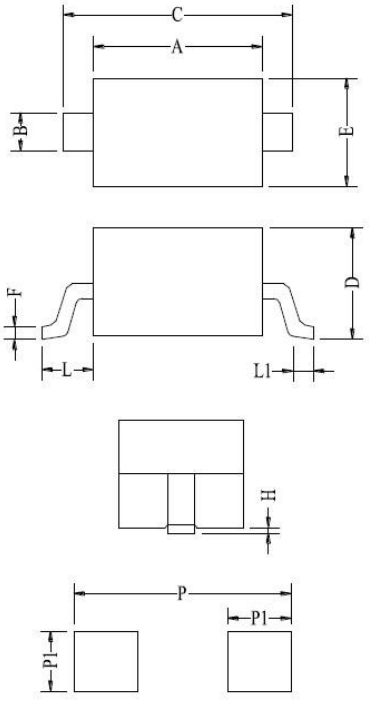


Fig4. ESD Clamping (-8KV Contac per IEC61000-4-2)



SOD-323 Package Mechanical Data



Land Pattern

Symbol	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.60	1.80	0.063	0.071
B	0.25	0.35	0.010	0.014
C	2.50	2.70	0.098	0.106
D	0.00	1.00	0.000	0.039
E	1.20	1.40	0.047	0.055
F	0.08	0.15	0.003	0.006
L	0.475REF		0.019REF	
L1	0.25	0.40	0.010	0.016
H	0.00	0.10	0.000	0.004
P	3.00		0.118	
P1	0.80		0.031	