



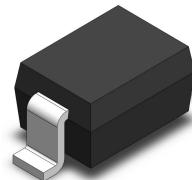
SE15D3U01GY

Transient Voltage Suppressors for ESD Protection

Low Capacitance

Features

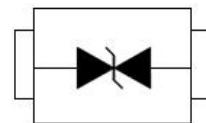
- ◆ IEC 61000-4-2 (ESD) $\pm 30\text{kV}$ (air), $\pm 30\text{kV}$ (contact)
- ◆ IEC61000-4-4 (EFT) 40A (5/50 μs)
- ◆ Response Time is $<1\text{ns}$
- ◆ Protect one I/O line (bidirectional)
- ◆ Low clamping voltage
- ◆ Working voltage: 15V
- ◆ Low leakage current

SOD-323

Applications

Pin Configuration

- ◆ Cell Phone Handsets and Accessories
- ◆ Microprocessor based Equipment
- ◆ Personal Digital Assistants (PDA's)
- ◆ Notebooks, Desktops, and Servers
- ◆ Portable Instrumentation
- ◆ Peripherals
- ◆ Networking and Telecom
- ◆ Serial and Parallel Ports



Mechanical Characteristics

- ◆ SOD-323 Package
- ◆ Flammability Rating: UL 94V-0
- ◆ Packaging: 3000 PCS / Tape & Reel
- ◆ High Temperature Soldering Guaranteed: 260°C/10s
- ◆ Reel Size: 7 inch

Absolute Maximum Ratings (TA=25°C unless otherwise specified)

Parameter	Symbol	Value	Units
ESD Voltage (HBM Waveform per IEC 61000-4-2)	V _{pF}	30	kV
Operating Temperature Range	T _{OPT}	-55 ~ +125	°C
Storage Temperature Range	T _{STG}	-55 ~ +150	°C
Lead Solering Temperature	T _L	260 (10 sec.)	°C

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Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Symbol	Conditions	Min	Typ	Max	Unit
V_{RWM}	--	--	--	15.0	V
V_{BR}	$I_T = 1 \text{ mA}$	16.7	--	--	V
I_R	$V_R = 15 \text{ V}$	--	--	1	μA
V_c	$I_{PP} = 1 \text{ A}, t_p = 8/20 \mu\text{s}$	--	20	--	V
V_c	$I_{PP} = 10 \text{ A}, t_p = 8/20 \mu\text{s}$	--	25	--	V
C_J	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$	--	31	--	pF

Ratings and V-I Characteristics Curves ($T_A=25^\circ\text{C}$, unless otherwise noted)

Fig1. V-I Curve Characteristics (Bi-directional)

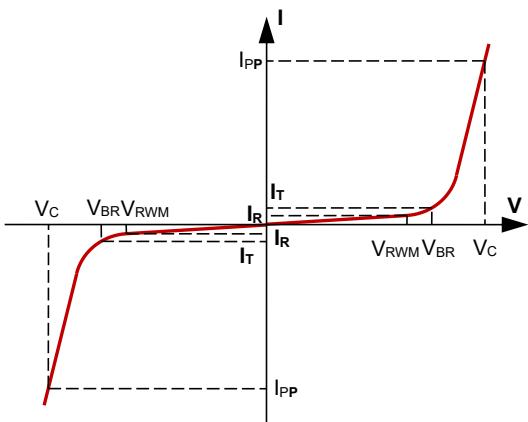


Fig2. Pulse Waveform (8/20μs)

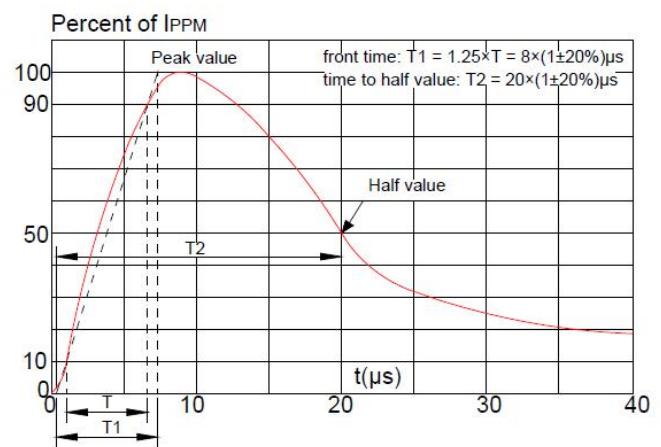


Fig3. Pulse Derating Curve

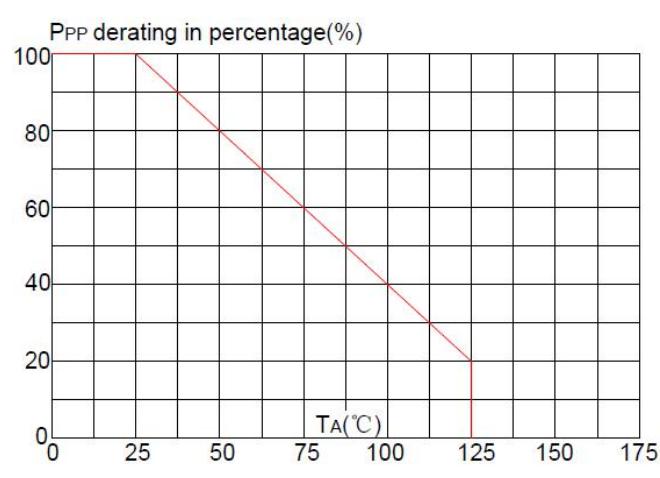
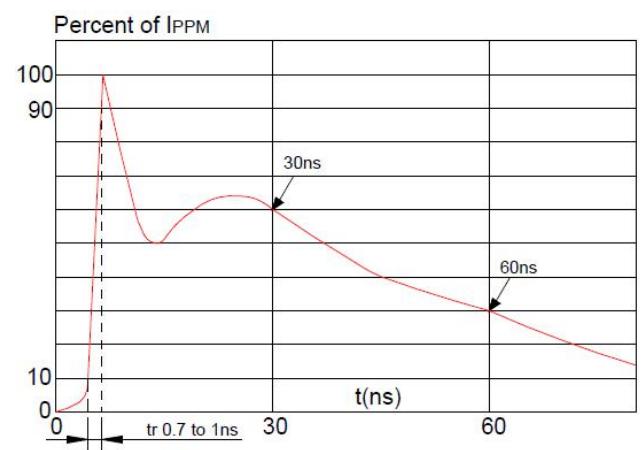


Fig4. ESD Clamping (30kV Contact)

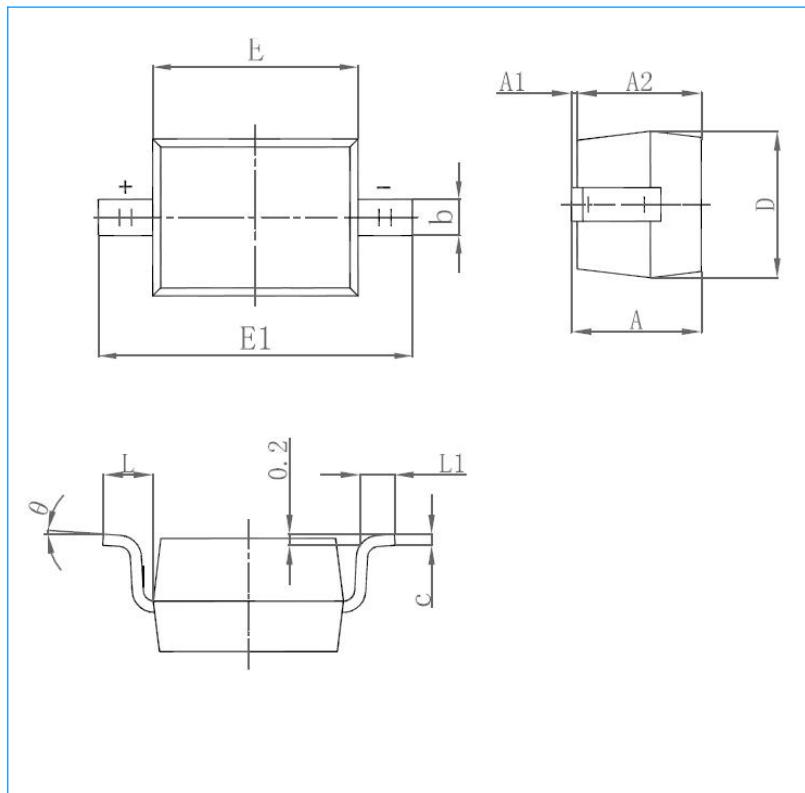


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SOD-323 Package Outline Dimensions



Symbol	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	--	1.00	--	0.039
A1	0.00	0.10	0.000	0.004
A2	0.80	0.90	0.031	0.035
b	0.25	0.35	0.010	0.014
c	0.08	0.15	0.003	0.006
D	1.20	1.40	0.047	0.055
E	1.60	1.80	0.063	0.071
E1	2.55	2.75	0.100	0.108
L	0.475 REF.		0.019 REF.	
L1	0.25	0.40	0.010	0.016
θ	0°	8°	0°	8°