

Transient Voltage Suppressors for ESD Protection

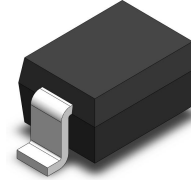
Low Capacitance

SE15D3V01GW

Features

- ◆ IEC 61000-4-2 (ESD) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact)
- ◆ IEC61000-4-4 (EFT) 40A (5/50ns)
- ◆ Response Time is $< 1\text{ns}$
- ◆ Protect one I/O line (bidirectional)
- ◆ Low clamping voltage
- ◆ Working voltage: 15V
- ◆ Low leakage current

SOD-323

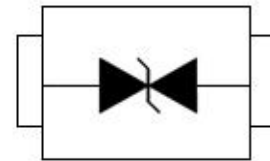


Applications

- ◆ 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

Pin Configuration



Mechanical Characteristics

- ◆ SOD-323 Package
- ◆ Flammability Rating: UL 94V-0
- ◆ Packaging: 3000 PCS / Tape & Reel
- ◆ High Temperature Soldering Guaranteed: $260^{\circ}\text{C}/10\text{s}$
- ◆ 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}	$-55 \sim +150$	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	$-55 \sim +150$	$^{\circ}\text{C}$
Lead Solering Temperature	T_{L}	260 (10 sec.)	$^{\circ}\text{C}$

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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	$I_{PP} = 9\text{A}$, $t_p = 8/20\mu\text{s}$	--	29	--	V
C_J	$V_R = 0\text{V}$, $f = 1\text{MHz}$	--	20	--	pF

Electrical Characteristics Curves

Fig1. Pulse Waveform

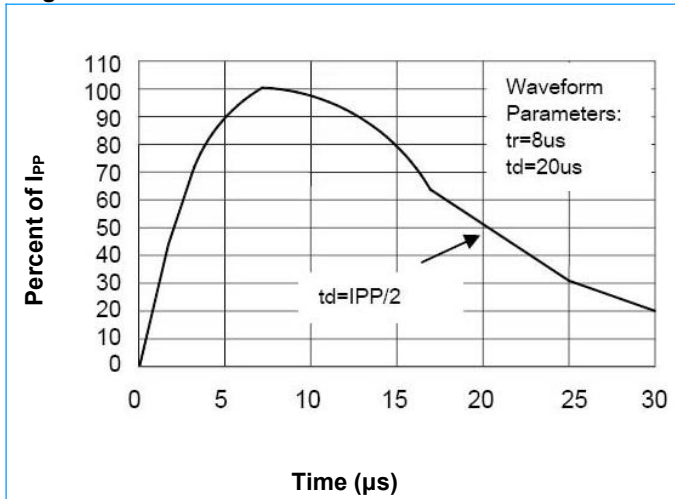


Fig2. Non-Repetitive Peak Pulse Power vs. Pulse Time

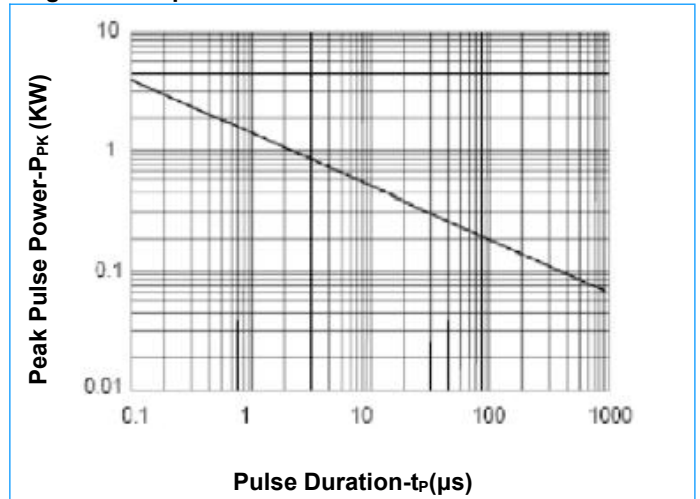


Fig3. Power Derating Curve

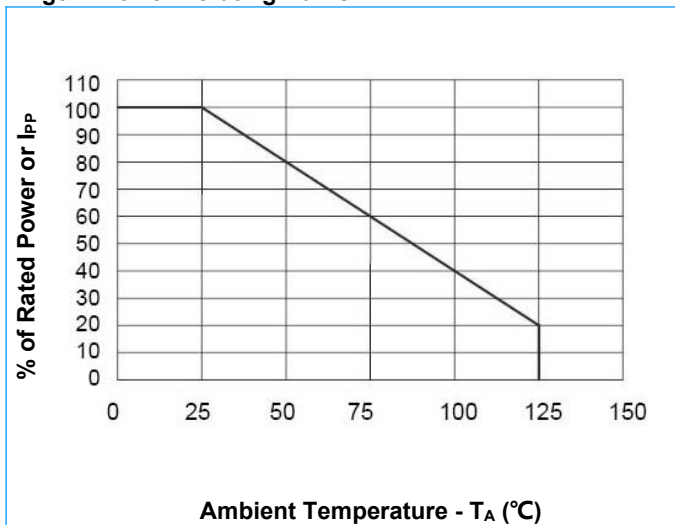
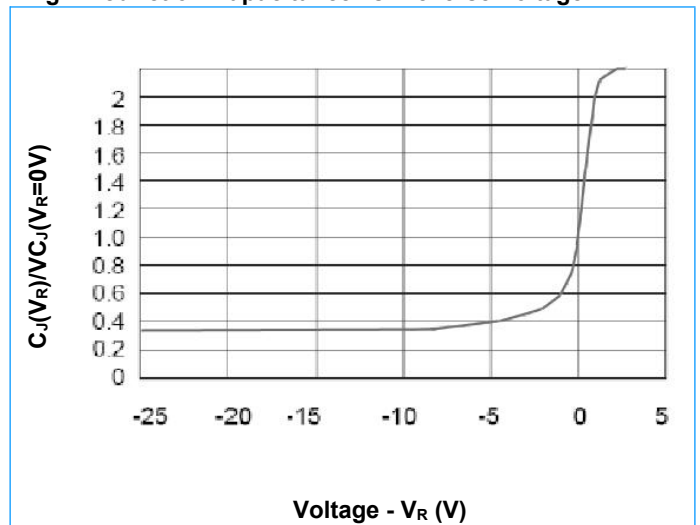
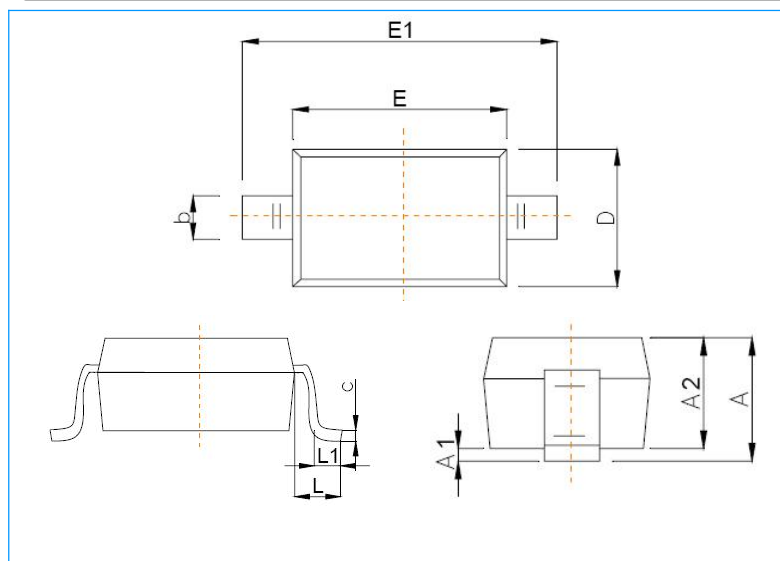


Fig4. Junction Capacitance vs. Reverse Voltage



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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