

# Transient Voltage Suppressors for ESD Protection

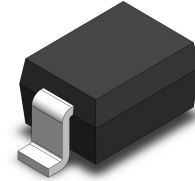
Low Capacitance

## SE03D3D01GW

### Feature

- ◆ IEC 61000-4-2 (ESD)  $\pm 25\text{kV}$  (air),  $\pm 25\text{kV}$  (contact)
- ◆ IEC61000-4-4 (EFT) 40A (5/50ns)
- ◆ Protect one I/O line (bidirectional)
- ◆ Low clamping voltage
- ◆ Working voltage: 3.3V
- ◆ Low leakage current
- ◆ Response time is  $< 1\text{ns}$

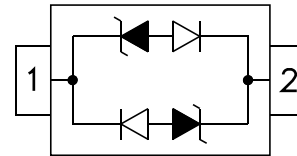
### SOD-323



### Applications

- ◆ Cell Phone Handsets and Accessories
- ◆ Microprocessor based Equipment
- ◆ Personal Digital Assistants (PDA's)
- ◆ Notebooks, Desktops, and Servers
- ◆ Portable Instrumentation
- ◆ Peripherals
- ◆ USB Interface

### Pin Configuration



### Mechanical Characteristics

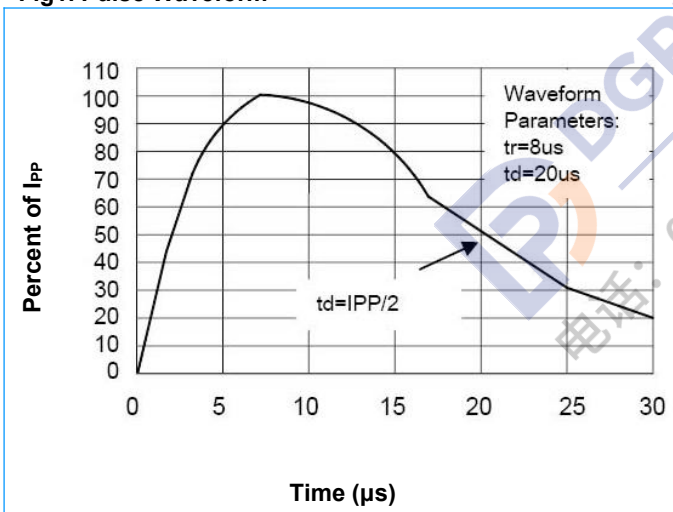
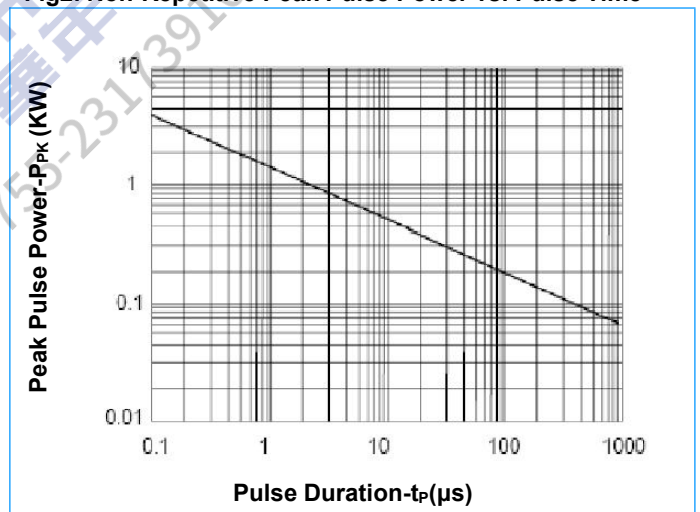
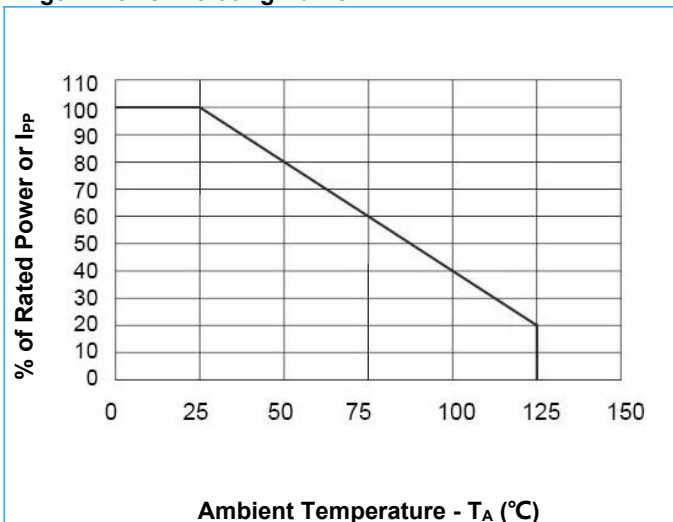
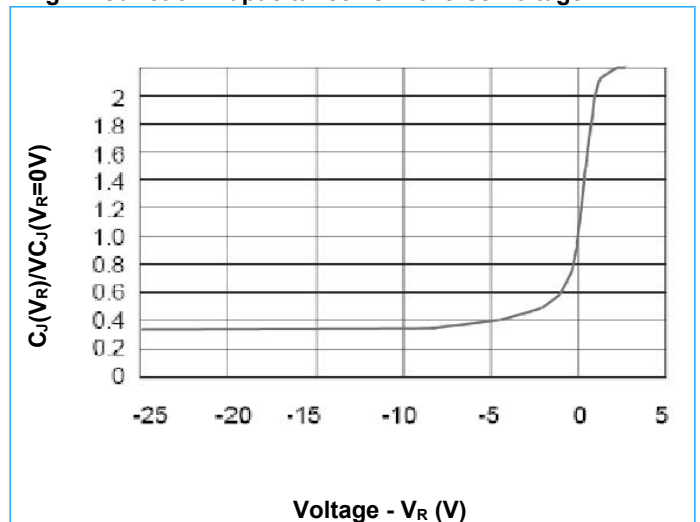
- ◆ SOD-323 Package
- ◆ Flammability Rating: UL 94V-0
- ◆ Packaging: 3000 PCS / Tape & Reel
- ◆ High Temperature Soldering Guaranteed:  $260^{\circ}\text{C}/10\text{s}$
- ◆ Reel Size: 7 inch
- ◆ Material: Halogen Free
- ◆ Marking Code: CC

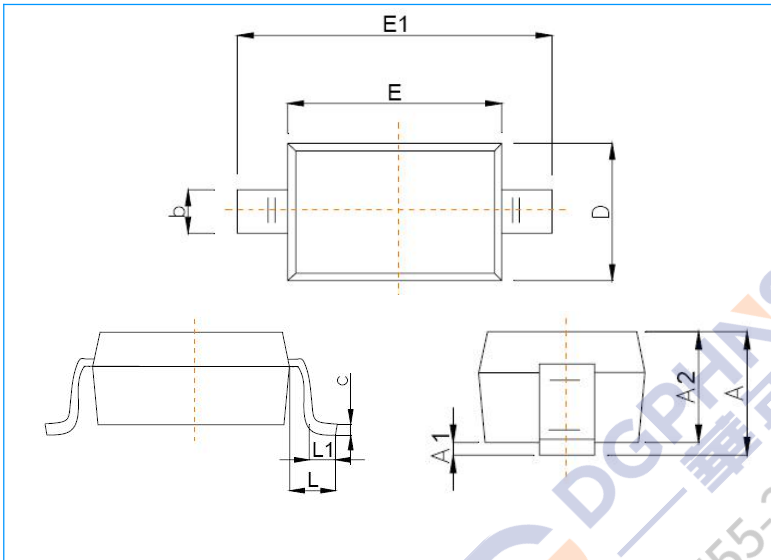
### Absolute Maximum Ratings (TA=25°C unless otherwise specified)

Parameter	Symbol	Value	Units
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	$V_{\text{ESD}}$	$\pm 25$ $\pm 25$	KV
Operating Temperature Range	$T_J$	$-55 \sim +150$	$^{\circ}\text{C}$
Storage Temperature Range	$T_{\text{STG}}$	$-55 \sim +150$	$^{\circ}\text{C}$
Lead Solering Temperature	$T_L$	260	$^{\circ}\text{C}$

**SE03D3D01GW**
**Electrical Characteristics (T<sub>A</sub>= 25°C unless otherwise specified)**

Part Number	V <sub>RWM</sub> (V) (Max)	V <sub>B</sub> (V) (Min)	I <sub>T</sub> (mA)	V <sub>C@1A</sub> (V) (Max)	V <sub>C</sub> (V)		I <sub>R</sub> (μA) (Max)	C <sub>T</sub> (pF) (Typ)
					(Max)	(@A)		
SE03D3D01GW	3.3	4.0	1	7.8	19.5	17	0.1	0.8

**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
$\theta$	0°	8°

**Recommended Pad Outline**
