

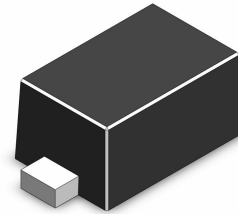
## Transient Voltage Suppressors for ESD Protection

### SE05D5S01HW

#### Features

- ◆ Working voltage : 5.0V
- ◆ Low leakage current: 1.0 $\mu$ A @  $V_{RWM}$
- ◆ Low clamping voltage
- ◆ Response Time is < 1 ns

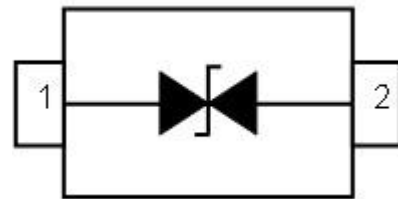
SOD-523



#### Applications

- ◆ High Speed Line: USB1.0/2.0, VGA, DVI, SDI
- ◆ Serial and Parallel Ports
- ◆ Note books, Desktops, Servers
- ◆ Projection TV

#### Pin Configuration



#### Mechanical Characteristics

- ◆ SOD-523 Package
- ◆ Molding Compound Flammability Rating : UL 94V-0
- ◆ Quantity Per Reel : 5,000pcs
- ◆ Reel Size : 7 inch

#### Absolute Maximum Rating

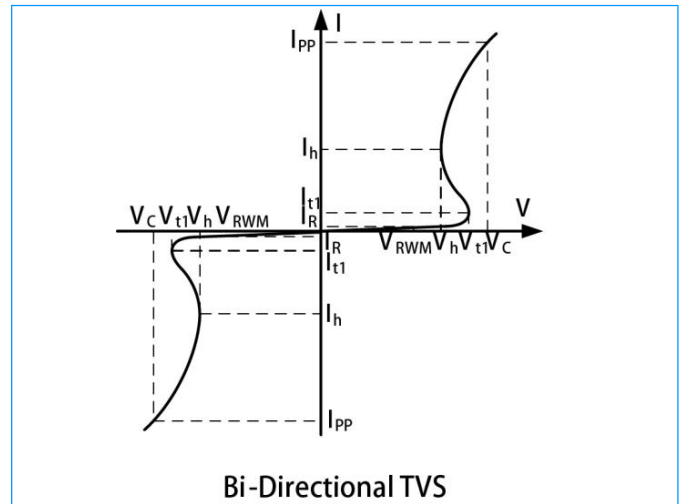
Symbol	Parameter	Value	Units
$T_{LST}$	Lead Soldering Temperature	150	$^{\circ}$ C
$T_{STG}$	Storage Temperature Range	-40 to +150	$^{\circ}$ C

# Transient Voltage Suppressors for ESD Protection

## SE05D5S01HW

### 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 @ $V_{RWM}$
$V_{t1}$	Trigger Voltage
$I_{t1}$	Trigger Current @ $V_{t1}$
$V_h$	Holding Voltage
$I_h$	Holding Current @ $V_h$



Bi-Directional TVS

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

Symbol	Test Condition	Minimum	Typical	Maximum	Units
$V_{RWM}$	--	--	--	5.0	V
$V_{BR}$	$I_T = \pm 1\text{mA}$	5.7	7.2	9	V
$I_R$	$V_{RWM} = \pm 5\text{V}$ , $T=25^\circ\text{C}$	--	--	1.0	$\mu\text{A}$
$V_C$	$I_{PP} = \pm 4.5\text{A}$ , $t_p = 8/20\mu\text{s}$	--	--	15	V
$C_J$	$V_R = 0\text{V}$ , $f = 1\text{MHz}$	--	7	12	pF

### Characteristic Curves

Fig1. Pulse Waveform

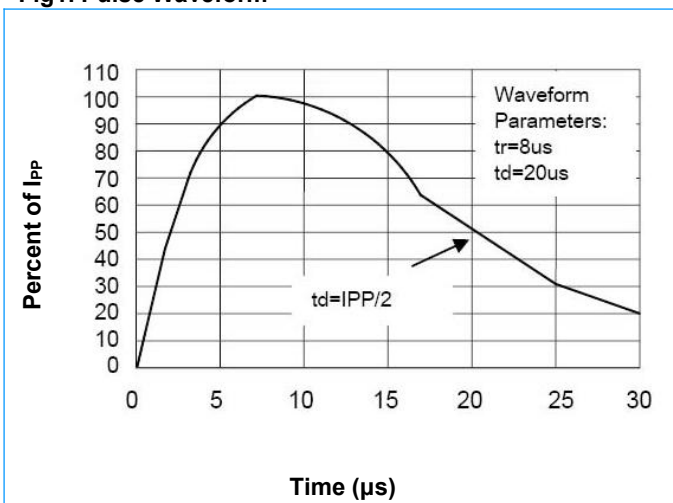
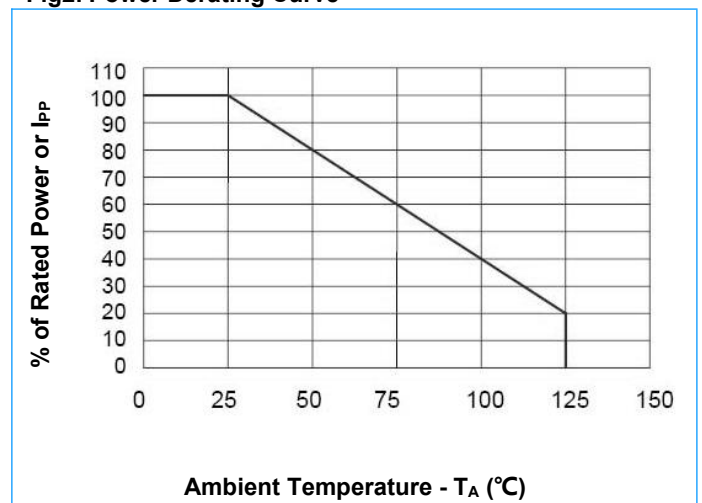


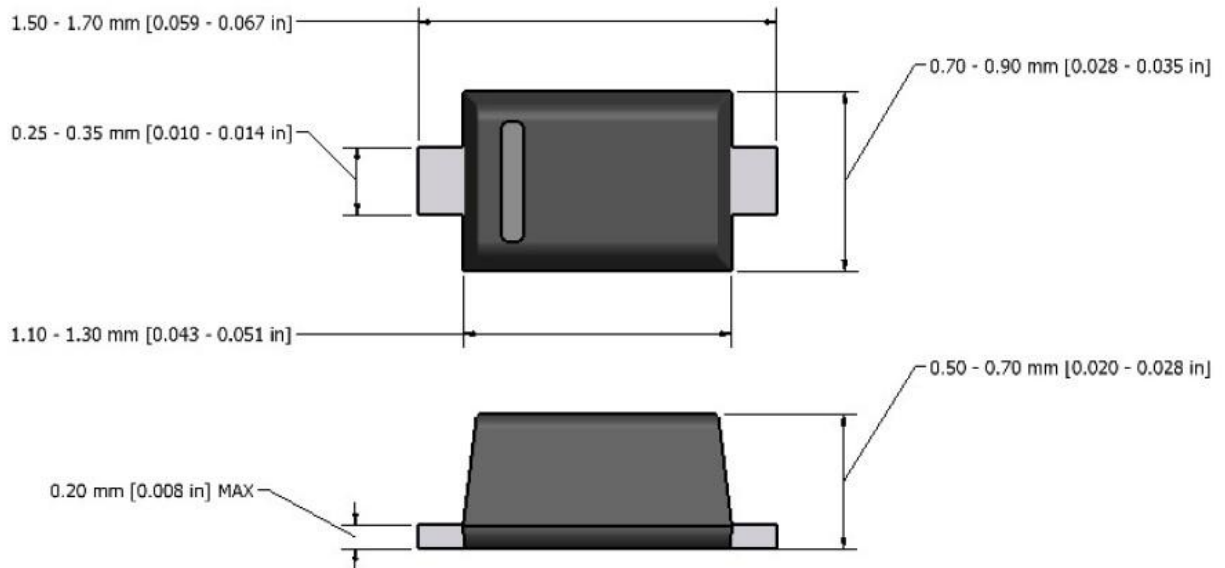
Fig2. Power Derating Curve



## Transient Voltage Suppressors for ESD Protection

SE05D5S01HW

### SOD-523 Package Outline & Dimensions



**Note:** Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.