

# Transient Voltage Suppressors

## SE12D5U11GT

### Features

- ◆ Working voltages : 12V
- ◆ Low leakage current: 0.03uA @  $V_{RWM}$
- ◆ Low clamping voltage
- ◆ Response Time is < 1 ns

### Applications

- ◆ Cell Phone Handsets and Accessories
- ◆ Microprocessor based equipment
- ◆ Personal Digital Assistants (PDA's)
- ◆ Notebooks, Desktops, and Servers

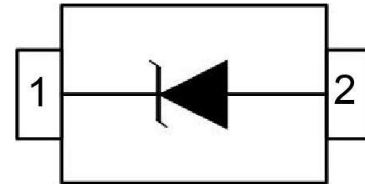
### Mechanical Characteristics

- ◆ SOD-523 package
- ◆ Molding Compound Flammability Rating: UL 94V-0
- ◆ Quantity Per Reel:3,000pcs
- ◆ Reel size: 7inch

### SOD-523



### PIN Configuration

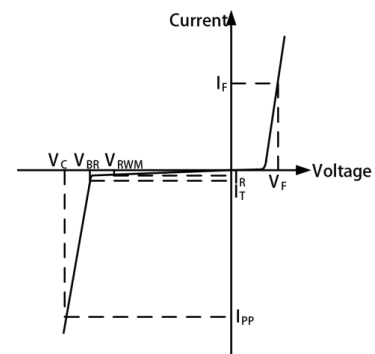


### Absolute Maximum Rating

Rating	Symbol	Value	Units
$V_{ESD}$	ESD per IEC 61000-4-2(Air) ESD per IEC 61000-4-2 (Contact)	$\pm 30$ $\pm 22$	KV
$T_J$	Operating Temperature	-55 to +150	$^{\circ}C$
$T_{STG}$	Storage Temperature	-55 to +150	$^{\circ}C$
$T_{LST}$	Lead Soldering Temperature	260(10 sec.)	$^{\circ}C$

### I-V Curve Characteristics

Symbol	Parameter
$I_{PP}$	Maximum Reverse 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
$I_F$	Forward Current
$V_F$	Forward Voltage @ $I_F$



Uni-Directional TVS

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### Electrical Characteristics (T = 25°C)

Symbol	Test Condition	Minimum	Typical	Maximum	Units
$V_{RWM}$	—	—	—	12	V
$I_R$	$V_{RWM}=12V, T=25^{\circ}C$	—	—	0.03	$\mu A$
$V_{BR}$	$I_T=1mA$	14.1	—	—	V
$V_C$	$I_{PP}=1A, t_p=8/20\mu s$	—	—	20	V
$V_C$	$I_{PP}=4A, t_p=8/20\mu s$	—	—	26	V
$C_J$	$V_R=0V, f=1MHz$	—	—	45	pF

### Characteristics Curve

Fig1. ESD Clamping of I/O to GND(+8kV Contact per IEC 61000-4-2)

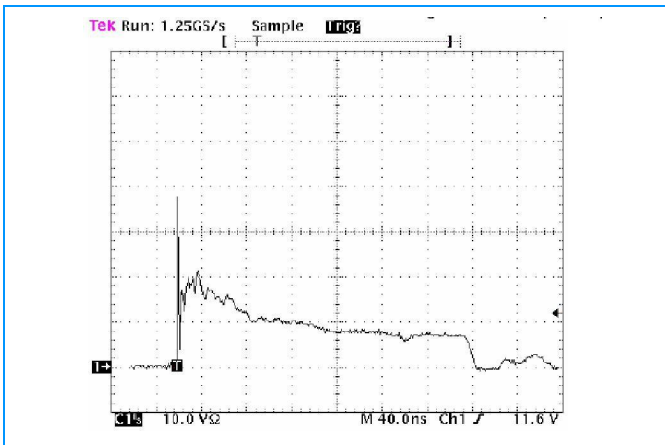
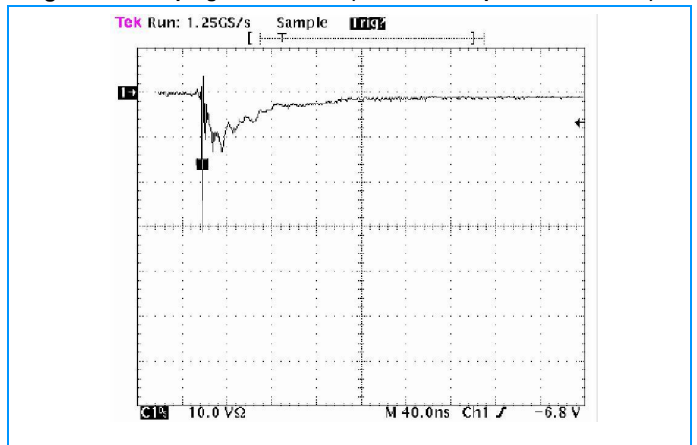


Fig2. ESD Clamping of I/O to GND(-8kV Contact per IEC 61000-4-2)



### SOD-523 Package Outline Dimensions

