

# GESBK3V3D3

## ESD Protection Diode

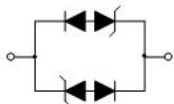
**VOLTAGE** 3.3 Volt

### FEATURES

- Bi-directional ESD protection of one line
- Low reverse clamping voltage
- Low leakage current
- IEC 61000-4-2 ±25KV air ,±25KV contact
- Lead free in compliance with EU RoHS

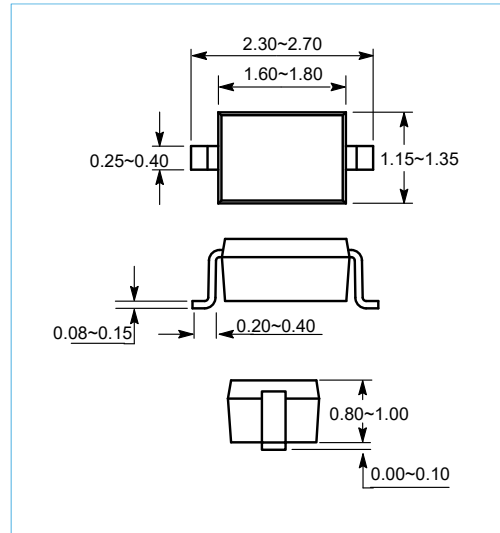
### MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



Schematic Diagram

**SOD-323** Unit:mm



### ABSOLUTE MAXIMUM RATINGS( $T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Limit	Unit
JESD22-A114-B ESD Voltage	$V_{\text{ESD}}^{(1)}$	±16	kV
ESD Voltage		±0.4	
Peak Pulse Power	$P_{\text{PP}}^{(2)}$	1120	W
Peak Pulse Current	$I_{\text{PP}}^{(2)}$	28	A
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{\text{stg}}$	-55 ~ +150	°C

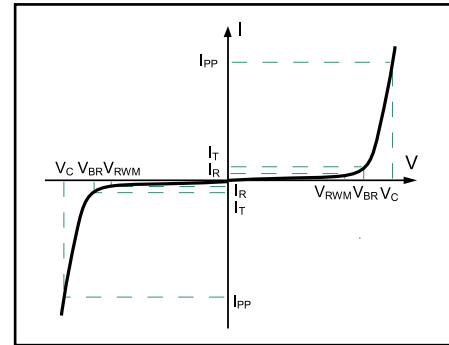
(1).Device stressed with ten non-repetitive ESD pulses.

(2).Non-repetitive current pulse 8/20μs exponential decay waveform according to IEC61000-4-5.

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## ELECTRICAL PARAMETER

Symbol	Parameter
$V_C$	Clamping Voltage @ $I_{PP}$
$I_{PP}$	Peak Pulse Current
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current
$I_R$	Reverse Leakage Current @ $V_{RWM}$
$V_{RWM}$	Reverse Standoff Voltage



V-I characteristics for a Bi-directional TVS

## ELECTRICAL CHARACTERISTICS( $T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	mbol	Test conditions	Min	Typ	Max	Unit
Reverse stand off voltage	$V_{RWM}^{(3)}$				3.3	V
Reverse leakage current	$I_R$	$V_{RWM}=3.3V$			5	$\mu\text{A}$
Breakdown voltage	$V_{(BR)}$	$I_T=1\text{mA}$	4.2		5.8	V
Clamping voltage	$V_C^{(4)}$	$I_{PP}=28\text{A}$			40	V
Junction capacitance	$C_J$	$V_R=0V, f=1\text{MHz}$		4.3		pF

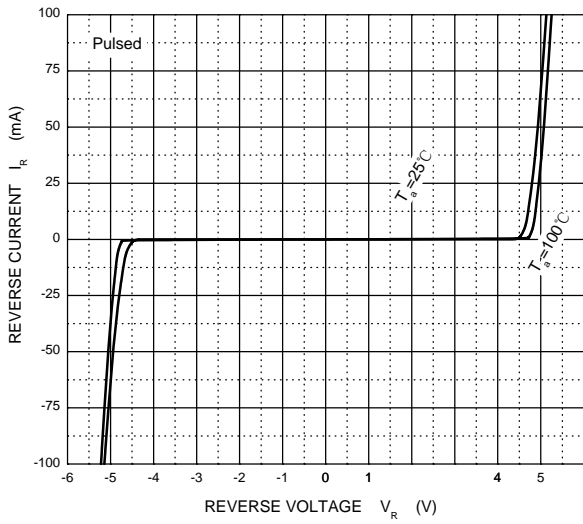
(3).Other voltages available upon request.

(4).Non-repetitive current pulse 8/20 $\mu\text{s}$  exponential decay waveform according to IEC61000-4-5

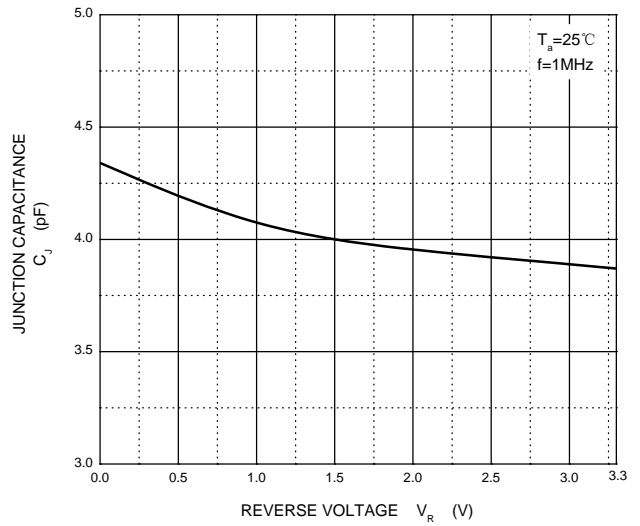
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## Typical Characteristics

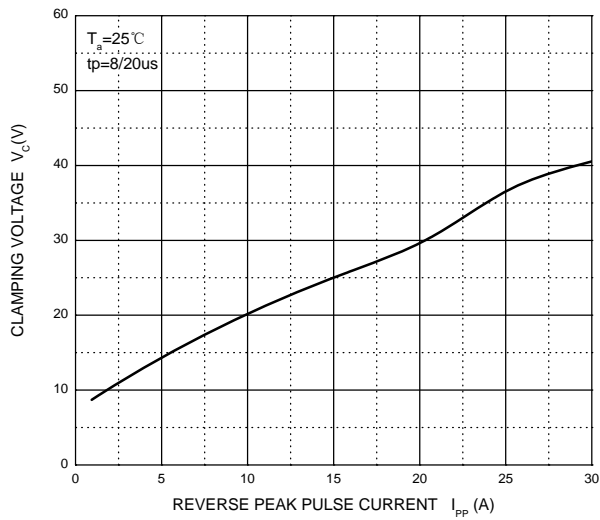
Reverse Characteristics



Capacitance Characteristics



$V_c$  ---  $I_{PP}$

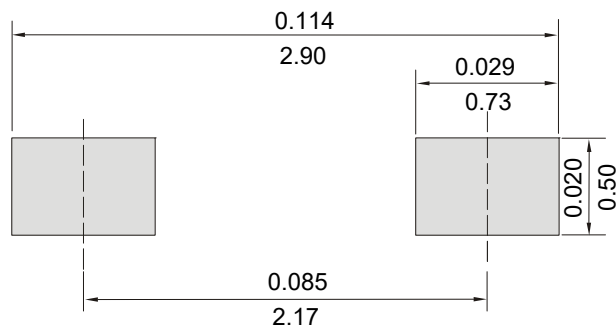


# GESBK3V3D3

## MOUNTING PAD LAYOUT

**SOD-323**

Unit: Inch(mm)



## ORDER INFORMATION

- Packing information

Part Number	Case	Reel Size	QUANTITY
GESBK3V3D3	SOD-323	7 Inch	3000