

GESB5VD5

ESD Protection Diode

VOLTAGE 5 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

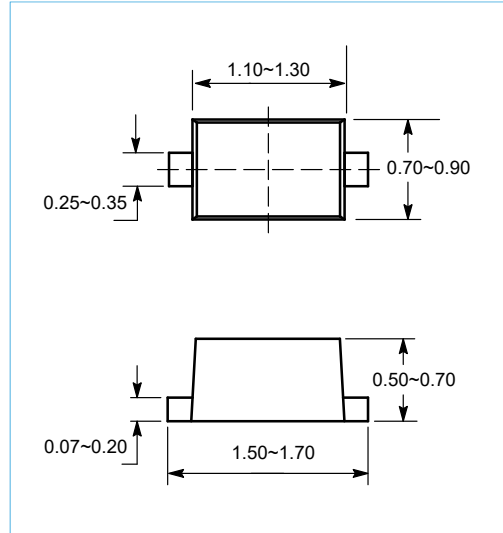
MECHANICAL DATA

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



Schematic Diagram

SOD-523 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	$P_{\text{PP}}^{(2)}$	112	W
Peak Pulse Current	$I_{\text{PP}}^{(2)}$	8	A
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55 ~ +150	°C

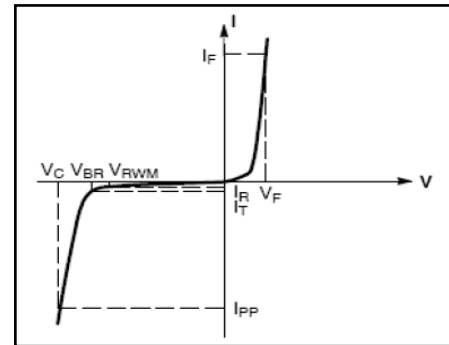
(1).Device stressed with ten non-repetitive ESD pulses.

(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_F	Forward Voltage @ I_F
I_F	Forward Current



V-I characteristics for a uni-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	$V_{RWM}^{(3)}$				5.0	V
Reverse leakage current	I_R	$V_{RWM}=5.0\text{V}$			1	μA
Breakdown voltage	$V_{(BR)}$	$I_T=1\text{mA}$	5.8		8.8	V
Clamping voltage	$V_C^{(4)}$	$I_{PP}=8\text{A}$			14	V
Junction capacitance	C_J	$V_R=0\text{V}, f=1\text{MHz}$		27		pF

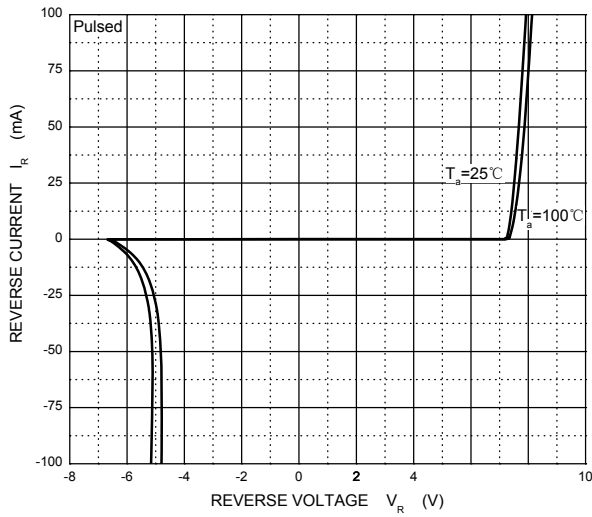
(3).Other voltages available upon request.

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

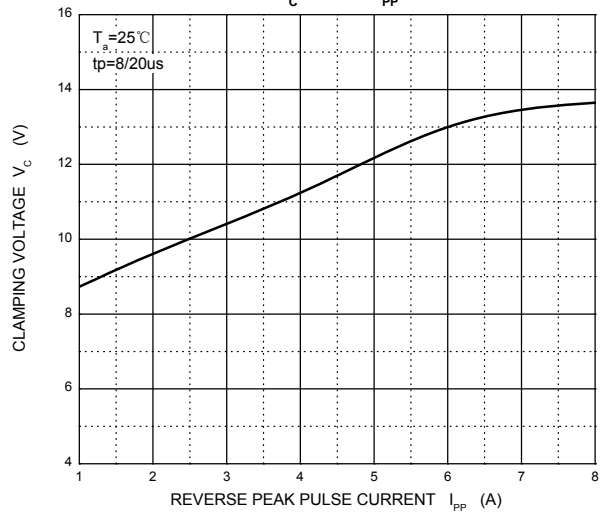
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Typical Characteristics

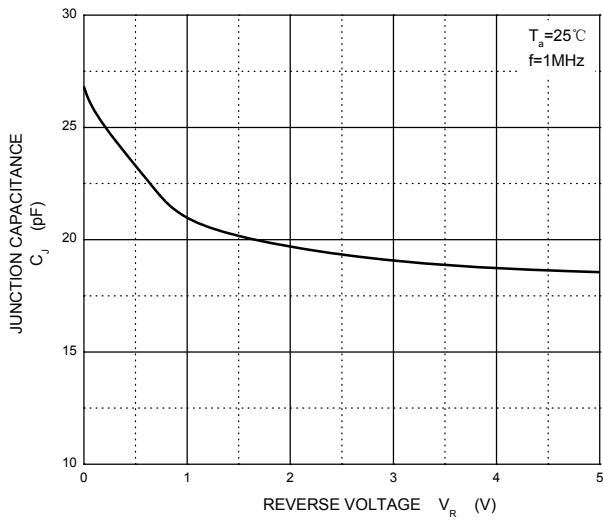
Reverse Characteristics



V_c — I_{PP}



Capacitance Characteristics

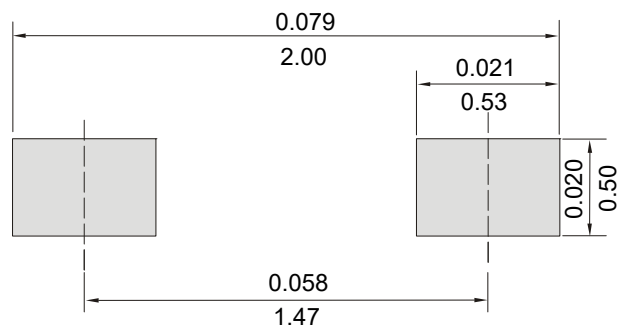


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MOUNTING PAD LAYOUT

SOD-523

Unit:Inch(mm)



ORDER INFORMATION

- Packing information

Part Number	Case	Reel Size	QUANTITY
GESB5VD5	SOD-523	7 Inch	8000