

## Product Summary

The GESDBN24VD32 is designed to protect voltage sensitive electronic components from ESD and other transients. Excellent clamping capability, low leakage, low capacitance, and fast response time, make these parts ideal for ESD protection on designs where board space is at a premium. Because of its small size, it is suited for use in digital cameras, cellular phones, MP3 players and many other portable applications where board space is at a premium.

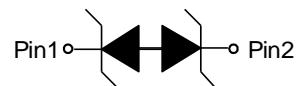
## Feature

- Low reverse stand-off voltage: 24V Max.
- Low reverse clamping voltage
- Ultra-low leakage current
- Fast response time
- IEC 61000-4-2 Level 4 ESD protection

SOD-323



Schematic diagram



## Application

- Digital cameras
- Portable applications
- Audio and video equipment
- USB Interface
- Mobile phone

## Marking:

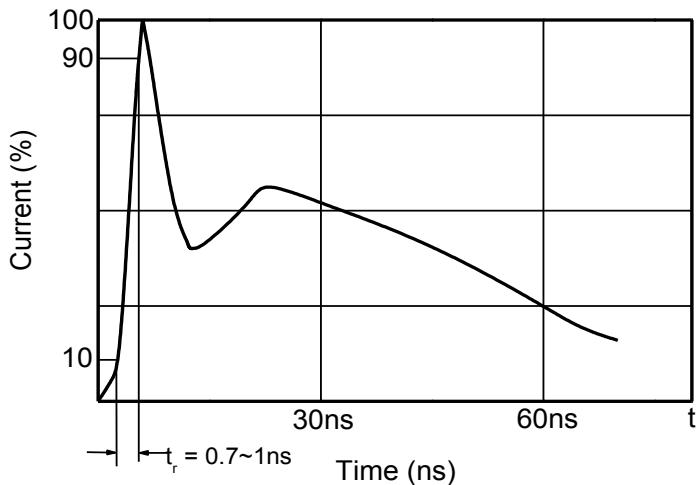
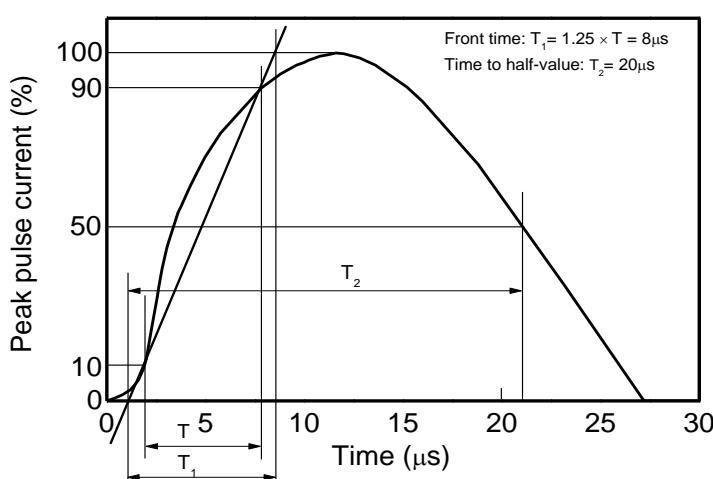


Front Side

24M=Device Code

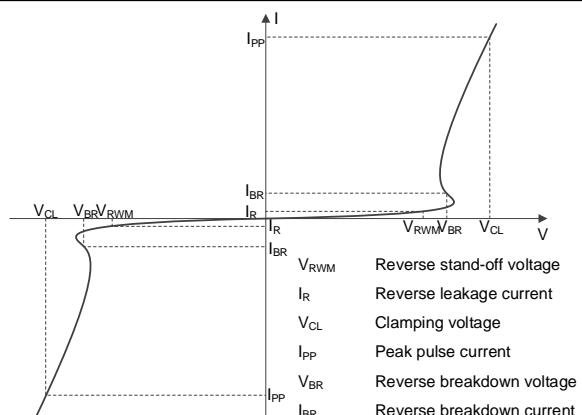
**Absolute Maximum Ratings (Ta=25°C unless otherwise noted)**

Parameter	Symbol	Value	Unit
IEC 61000-4-2 ESD Voltage	$V_{ESD}$	$\pm 30$	kV
IEC 61000-4-2 ESD Voltage		$\pm 30$	
JESD22-A114-B ESD Voltage		$\pm 16$	
ESD Voltage		$\pm 0.4$	
Peak Pulse Power (8/20μs)	$P_{pk}$	480	W
Peak Pulse Current (8/20μs)	$I_{PP}$	9	A
Junction Temperature	$T_J$	-55~ +125	°C
Storage Temperature	$T_{stg}$	-55~ +150	°C

**Contact discharge current waveform per IEC61000-4-2**

**8/20μs waveform per IEC61000-4-5**


## Electrical Parameter

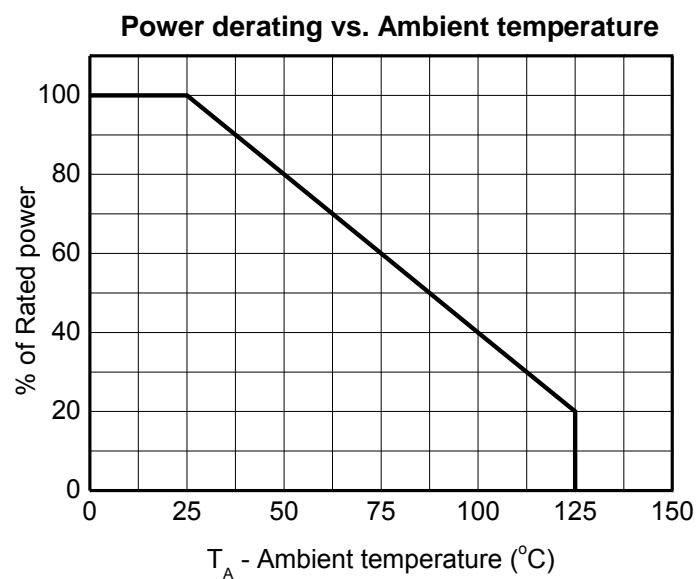
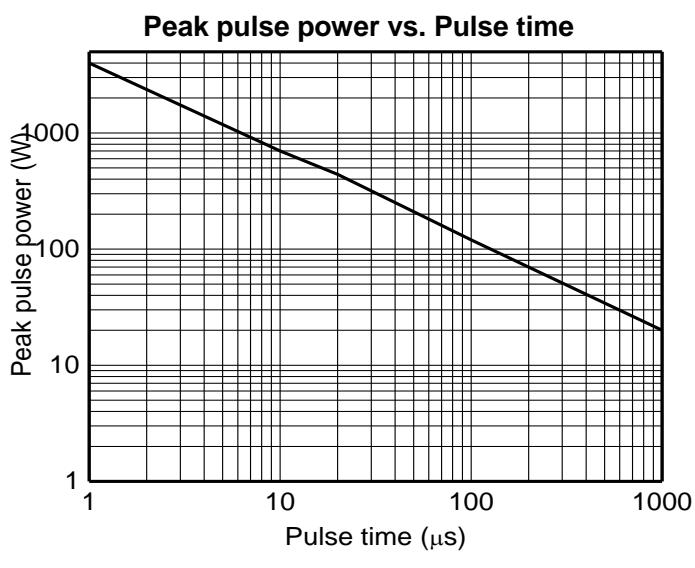
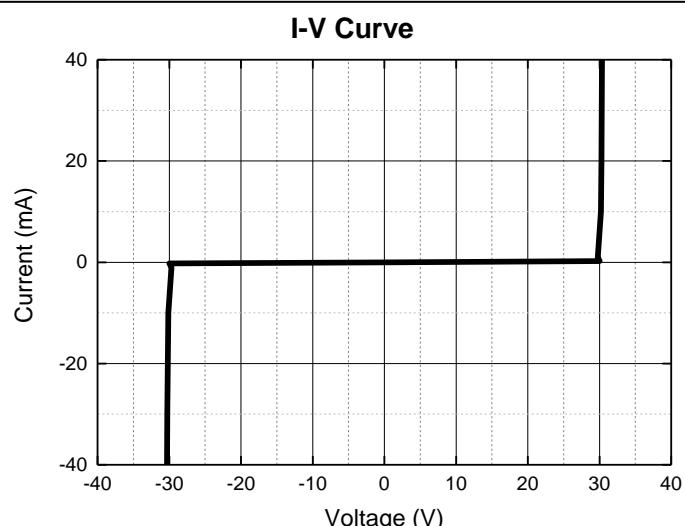
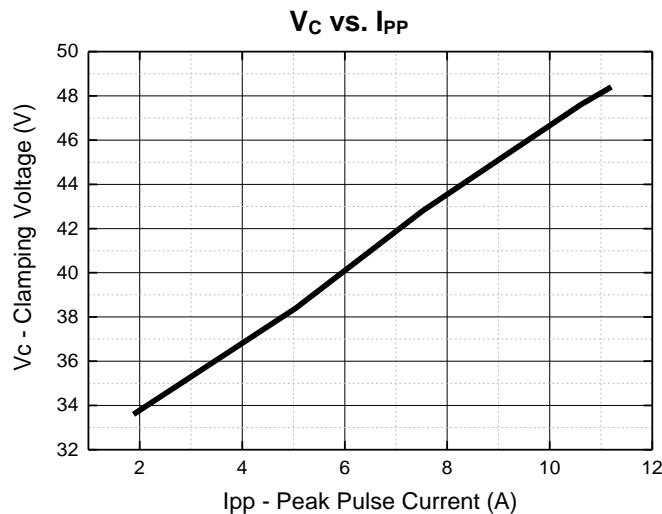
Symbol	Parameter
V <sub>C</sub>	Clamping Voltage @ I <sub>PP</sub>
I <sub>PP</sub>	Peak Pulse Current
V <sub>BR</sub>	Breakdown Voltage @ I <sub>BR</sub>
I <sub>BR</sub>	Test Current
I <sub>R</sub>	Reverse Leakage Current @ V <sub>RWM</sub>
V <sub>RWM</sub>	Reverse Standoff Voltage

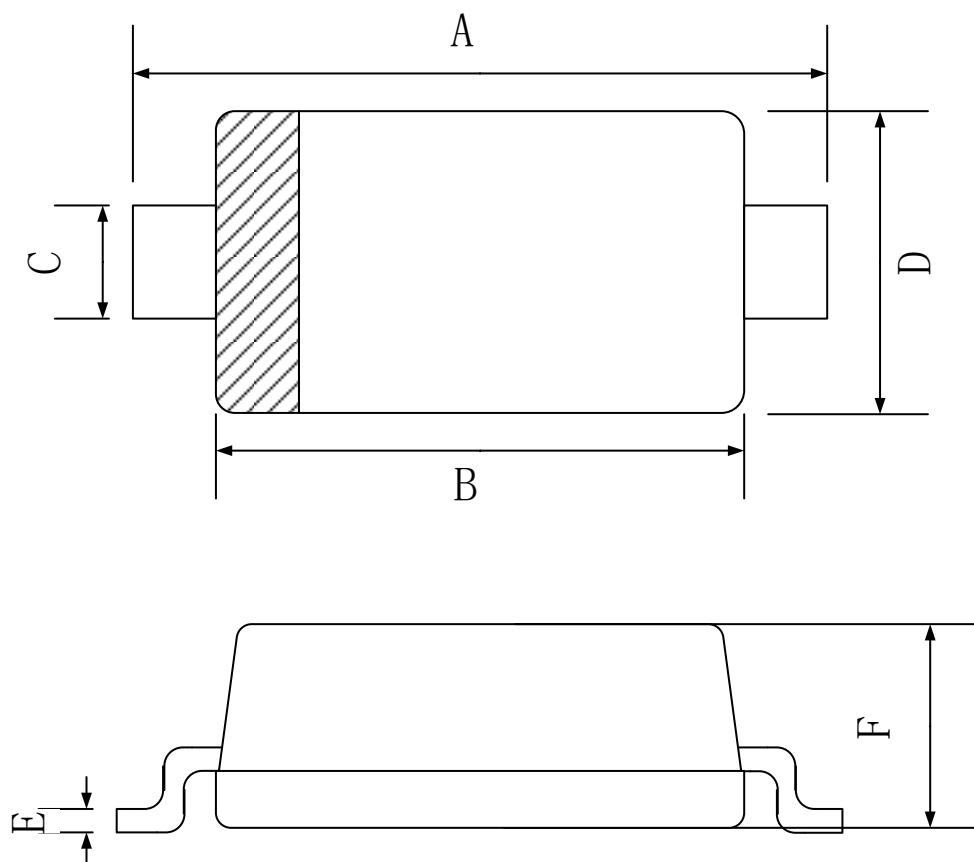


**V-I characteristics for a Bi-directional TVS**

## Electrical Characteristics ( $T_a=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse stand-off voltage	V <sub>RWM</sub>				24	V
Reverse leakage current	I <sub>R</sub>	V <sub>RWM</sub> =24V			0.1	μA
Breakdown voltage	V <sub>(BR)</sub>	I <sub>T</sub> =1mA	26		32	V
Clamping voltage	V <sub>C1</sub>	I <sub>PP</sub> = 1A (8 x 20μs pulse)		32		V
	V <sub>C2</sub>	I <sub>PP</sub> = 9A (8 x 20μs pulse)		46		V
Junction capacitance	C <sub>J</sub>	V <sub>R</sub> =0V,f=1MHz		38	60	pF

**Typical Characteristics**


**SOD-323 Package Outline Dimensions**


Symbol	Dimensions In Millimeters		
	Min.	Typ.	Max.
A	2.30	2.50	2.70
B	1.60	1.70	1.90
C	0.25	0.325	0.40
D	1.15	1.25	1.35
E	0.089	0.095	0.101
F	0.80	0.90	1.00