

Product Summary

The GESDBN5V5Y1 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: 5V Max.
- Low reverse clamping voltage
- Ultra-low leakage current
- Fast response time
- IEC 61000-4-2 Level 4 ESD protection

Application

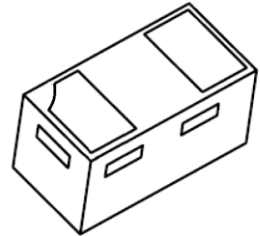
- Digital cameras
- Portable applications
- Audio and video equipment
- MP3 players
- Mobile phone

Marking:

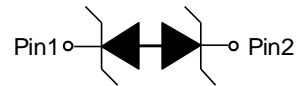


Front Side
5X=Device Code

DFN1006-2L



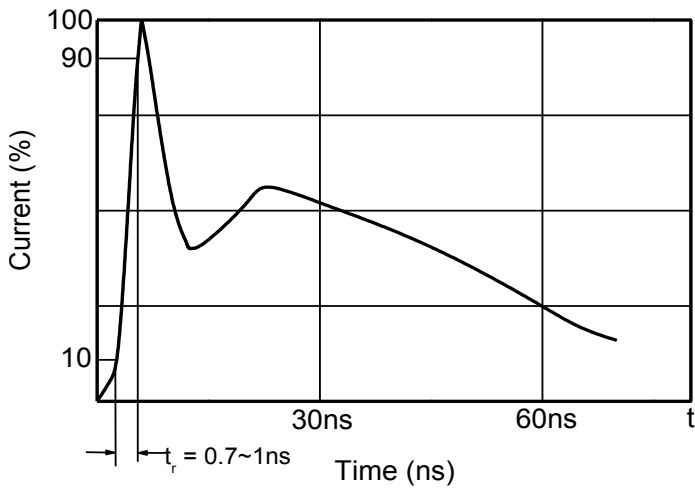
Schematic diagram



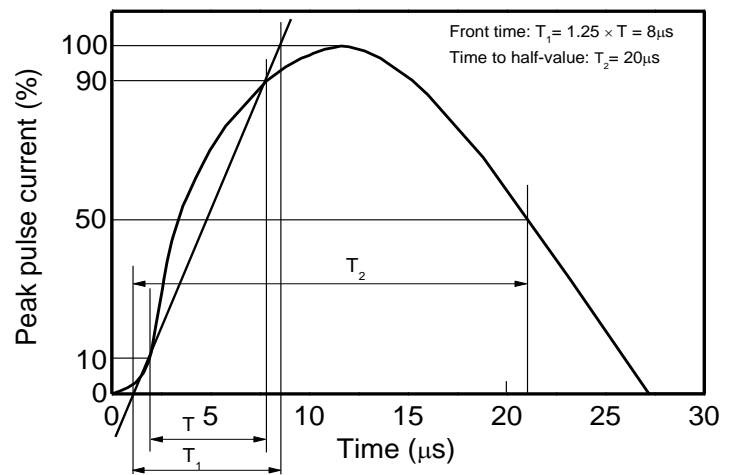
Absolute Maximum Ratings (Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
IEC 61000-4-2 ESD Voltage	Air Model	±30	kV
IEC 61000-4-2 ESD Voltage	Contact Model	±30	
JESD22-A114-B ESD Voltage	Per Human Body Model	±16	
ESD Voltage	Machine Model	±0.4	
Peak Pulse Power (8/20μs)	P _{pk}	100	W
Peak Pulse Current (8/20μs)	I _{PP}	22	A
Junction Temperature	T _J	-55~ +125	°C
Storage Temperature	T _{stg}	-55~ +150	°C

Contact discharge current waveform per IEC61000-4-2

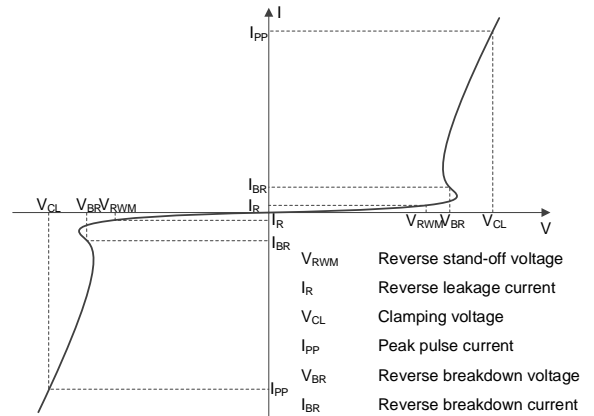


8/20μs waveform per IEC61000-4-5



Electrical Parameter

Symbol	Parameter
V _C	Clamping Voltage @ I _{PP}
I _{PP}	Peak Pulse Current
V _{BR}	Breakdown Voltage @ I _{BR}
I _{BR}	Test Current
I _R	Reverse Leakage Current @ V _{RWM}
V _{RWM}	Reverse Standoff Voltage

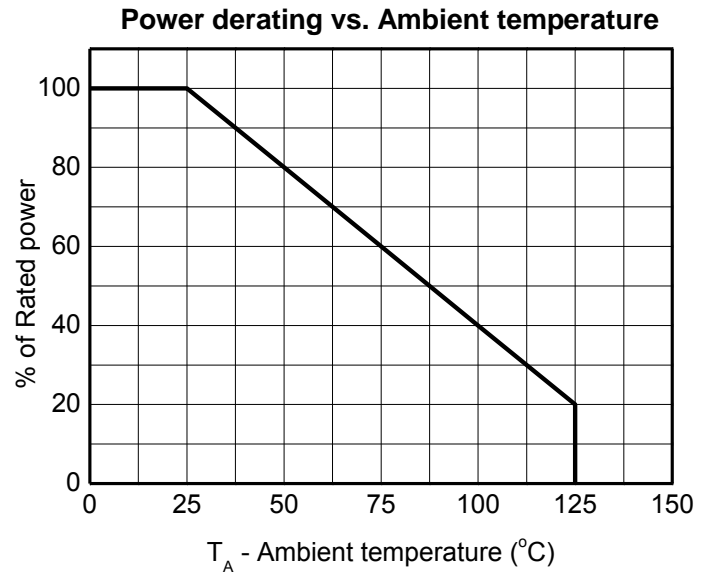
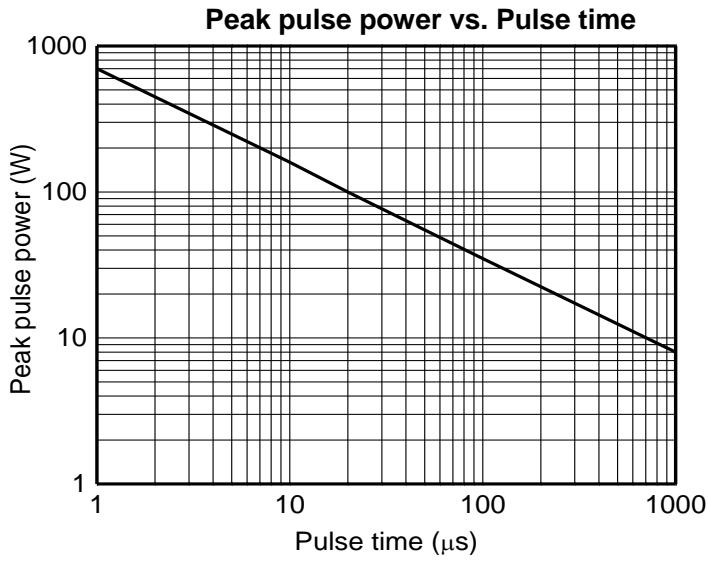
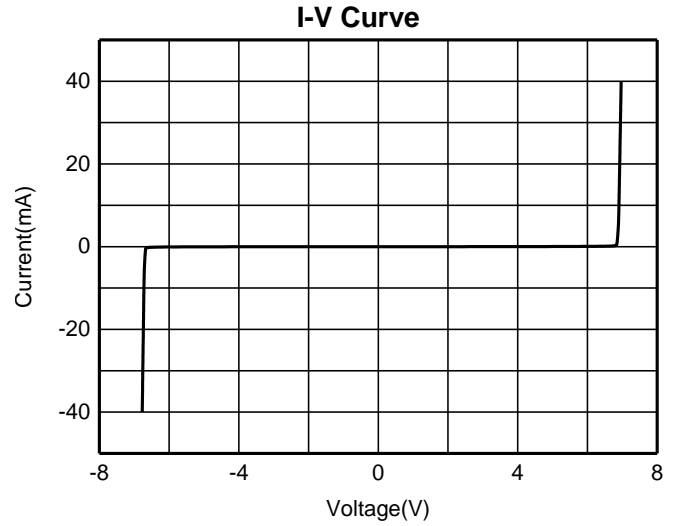
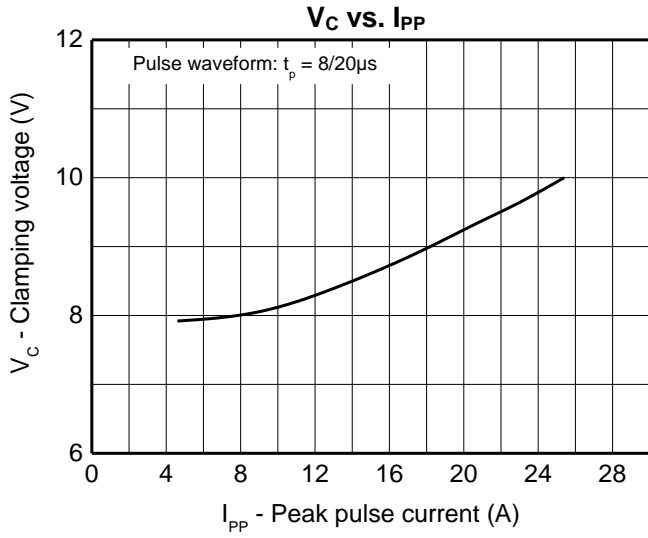


V-I characteristics for a Bi-directional TVS

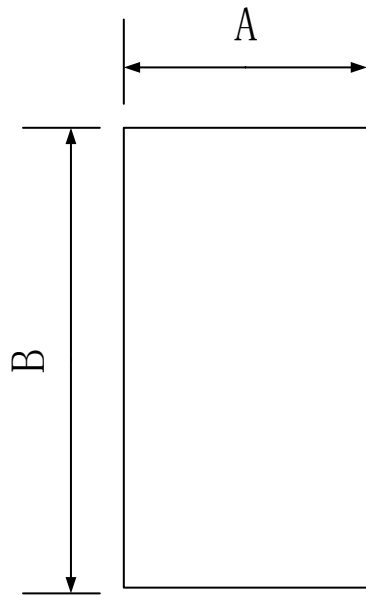
Electrical Characteristics (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse stand-off voltage	V _{RWM}				5	V
Reverse leakage current	I _R	V _{RWM} =5V			0.1	μA
Breakdown voltage	V _(BR)	I _T =1mA	6		9	V
Clamping voltage	V _{C1}	I _{PP} = 1A (8 x 20μs pulse)			8	V
	V _{C2}	I _{PP} = 22A (8 x 20μs pulse)		9.5	13.5	V
Junction capacitance	C _J	V _R =0V, f=1MHz		60	80	pF

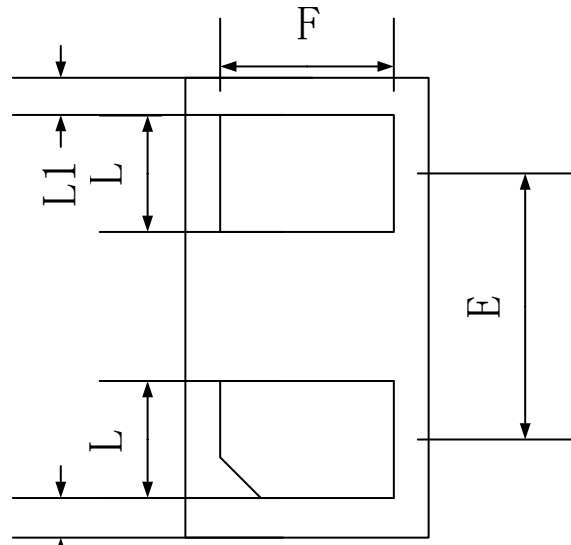
Typical Characteristics



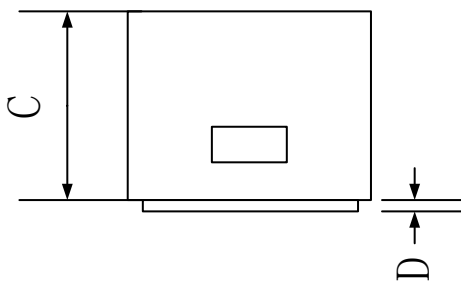
DFN1006-2L Package Outline Dimensions



Top View



Bottom View



Side View

	Dimensions In Millimeters		
	Min.	Typ.	Max.
A	0.55	0.60	0.68
B	0.95	1.00	1.08
C	0.44	0.47	0.50
D	0.00	0.03	0.05
E	-	0.65	-
F	0.40	0.50	0.60
L	0.20	0.25	0.30
L1	0.05REF		