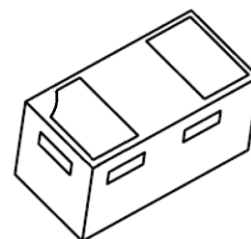
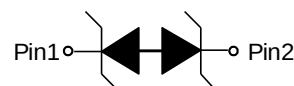


Product Summary

The GESDBL5V0Y1 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

DFN1006-2L

Schematic diagram


Application

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

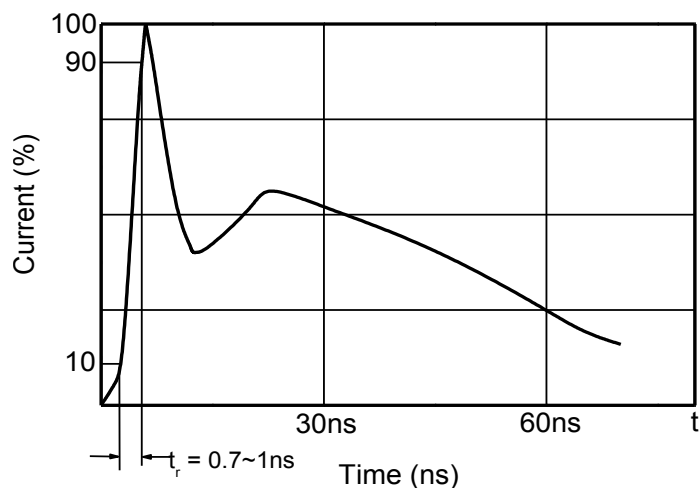
Marking:


FRONT VIEW
Front Side
G = Device Code

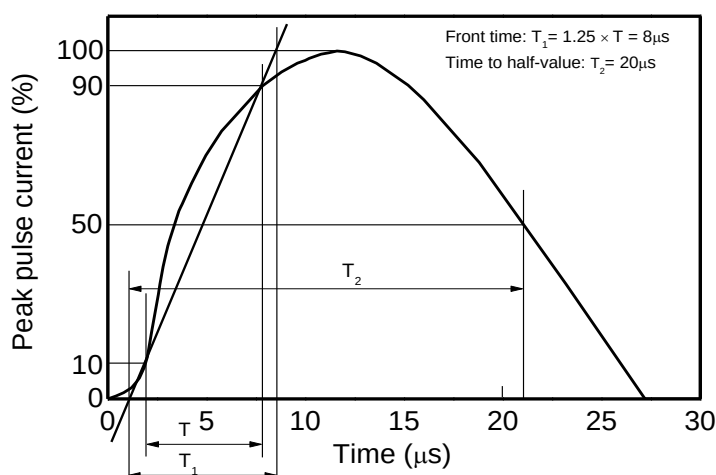
Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
IEC 61000-4-2 ESD Voltage Air Model	V_{ESD}	± 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 (8/20 μs)	P_{pk}	100	W
Peak Pulse Current (8/20 μs)	I_{PP}	8	A
Junction Temperature	T_J	$-55 \sim +125$	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	$-55 \sim +150$	$^{\circ}\text{C}$

Contact discharge current waveform per IEC61000-4-2

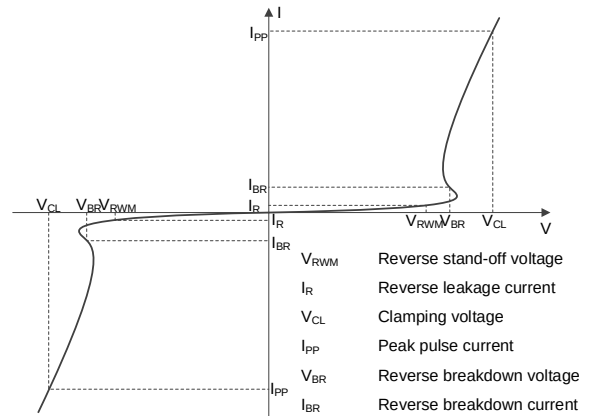


8/20 μs waveform per IEC61000-4-5



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

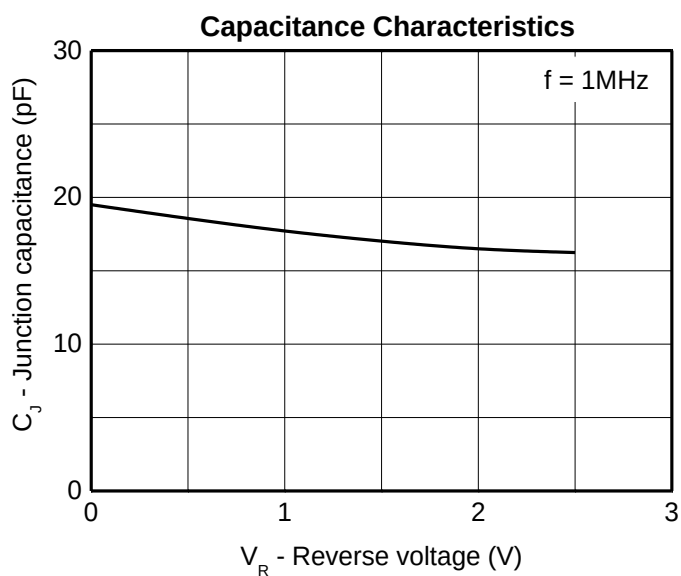
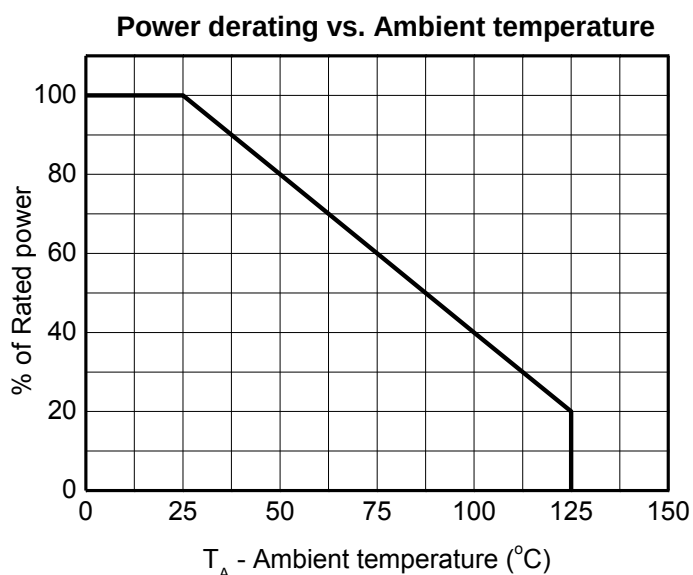
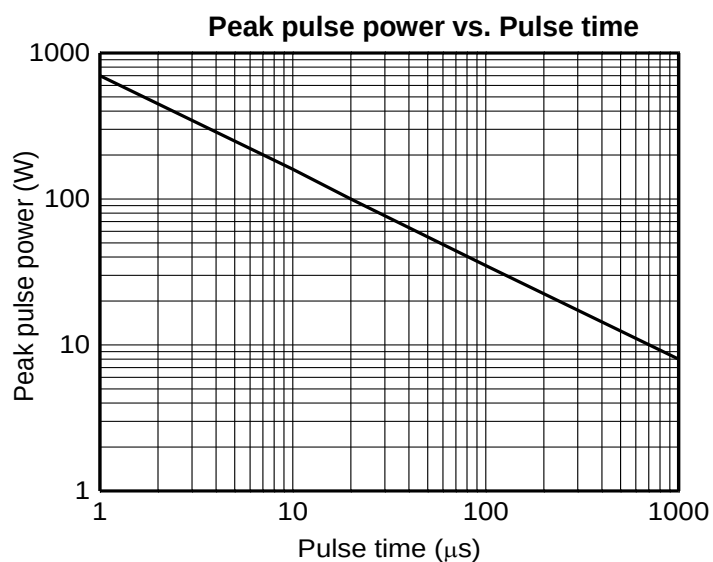
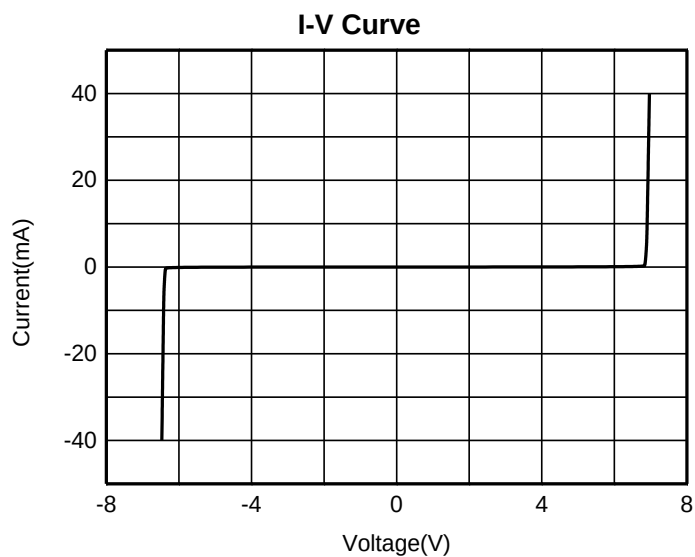
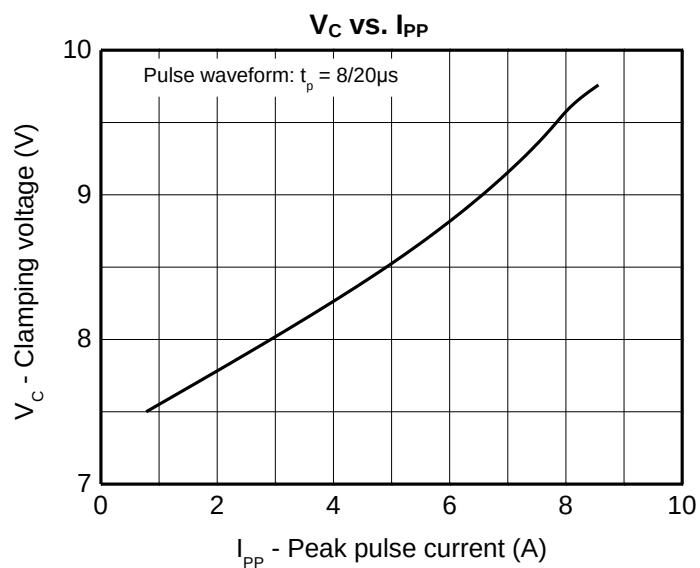
Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

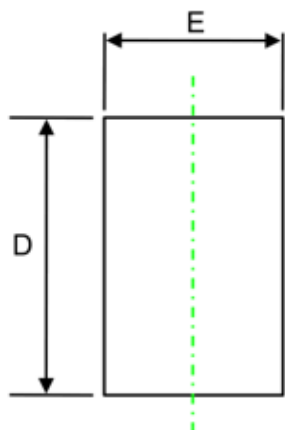
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse Stand-off Voltage	$V_{RWM}^{(1)}$				5	V
Reverse Leakage Current	I_R	$V_{RWM} = 5\text{V}$			0.5	μA
Breakdown Voltage	$V_{(BR)}$	$I_T = 1\text{mA}$	5.6		7.4	V
Clamping Voltage	$V_{C1}^{(2)}$	$I_{PP} = 1\text{A}$		7	8	V
	$V_{C2}^{(2)}$	$I_{PP} = 8\text{A}$		10	12.5	V
Junction Capacitance	C_j	$V_R = 0\text{V}, f = 1\text{MHz}$		17	22	pF

Notes:

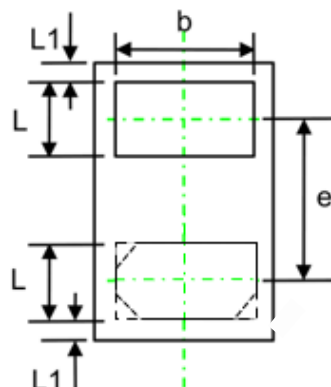
- Other voltages available upon request.
- Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC61000-4-5

Typical Characteristics

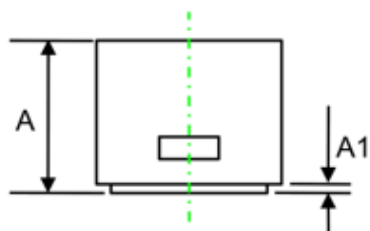


DFN1006-2L Package Outline Dimensions


TOP VIEW
[顶视图]



BOTTOM VIEW
[底视图]



SIDE VIEW
[侧视图]

Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.400	0.550	0.016	0.022
A1	0.000	0.050	0.000	0.002
D	0.950	1.050	0.037	0.041
E	0.550	0.650	0.022	0.026
b	0.400	0.600	0.016	0.024
e	0.65 TYP		0.026 TYP	
L1	0.05 REF		0.002 REF	
L	0.200	0.300	0.008	0.012

Attention:

- GreenPower Electronics reserves the right to improve product design function and reliability without notice.
- Any and all semiconductor products have certain probability to fail or malfunction, which may result in personal injury, death or property damage. Customer are solely responsible for providing adequate safe measures when design their systems.
- GreenPower Electronics products belong to consumer electronics or other civilian electronic products.