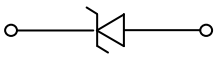
GSESLC5VD1006-2U
Low Capacitance ESD Protection Diode

Features

- 120 Watts peak pulse power (tp = 8/20μs)
- Uni-directional configuration
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance (C_j=0.45pF typ.)
- Protection one data/power line to:
  IEC 61000-4-2 ±20kV contact ±20kV air
  IEC 61000-4-4 (EFT) 40A (5/50ns)
  IEC 61000-4-5 (Lightning) 6A (8/20μs)
- RoHS compliant

DFN1006



Schematic Diagram

Applications

- Audio Line, Speaker, Headset, Microphone Protection
- Human Interface Devices (Keyboard, Touchpad, Buttons)
- USB2.0, USB3.0, Firewire, DVI, HDMI, S-ATA
- Thunderbolt, Display Port
- Mobile HDMI Link, MDDI, MIPI, SWP / NFC

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (T_P=8/20μS)	P_{PP}	120	W
ESD contact/air discharge (IEC-61000-4-2)	V_{ESD}	20/20	kV
Peak Pulse Current (t_P = 8/20μS)	I_{PP}	6.0	A
Junction Temperature	T_J	-55 to +125	°C
Storage temperature	T_{STG}	-55 to +150	°C

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

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	V_{RWM}	-	-	-	5.0	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	6.0	-	-	V
Reverse Leakage Current	I_R	V_R=5.0V	-	-	1	uA
Clamping Voltage (IEC 61000-4-5)	V_C	I_{PP}=6.0A	-	16.5	20	V
Trigger Voltage (IEC 61000-4-2)	V_T	V_{ESD}=8kV	-	90	-	V
Clamping Voltage (IEC 61000-4-2)	V_C	V_{ESD}=8kV	-	15	-	V
Junction Capacitance	C_J	V_R=0V, f=1MHz	-	0.45	0.65	pF

Typical Characteristic Curves

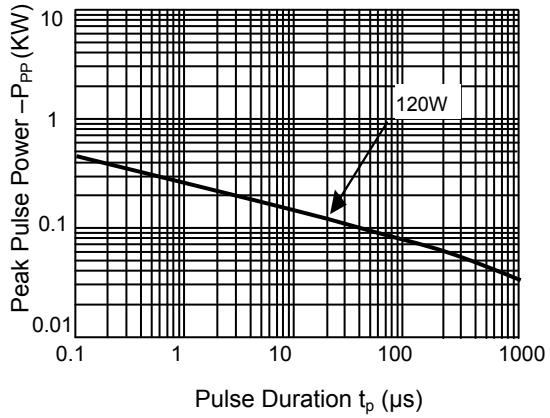


Figure 1. Peak Pulse Power Rating Curve

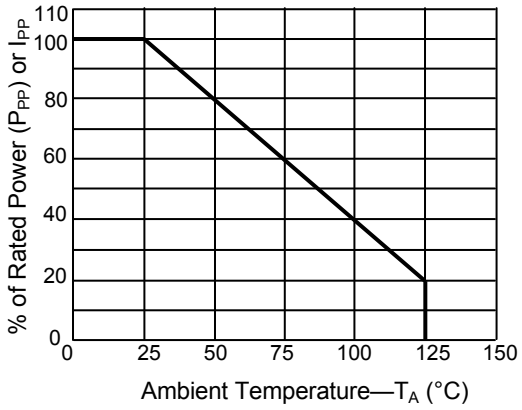


Figure 2. Pulse Derating Curve

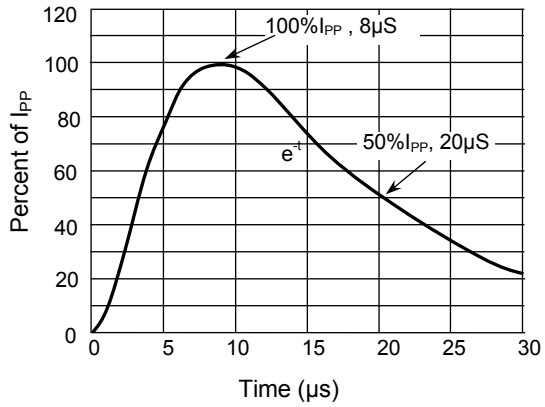


Figure 3. Pulse Waveform-8/20μs

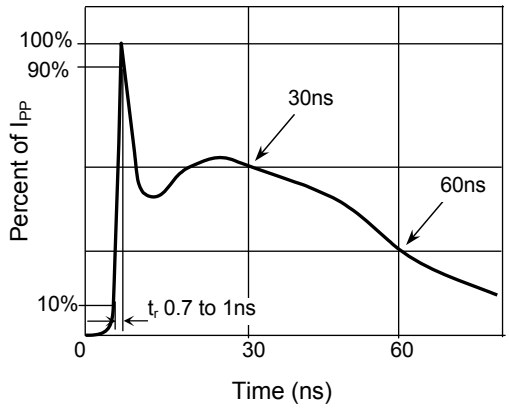
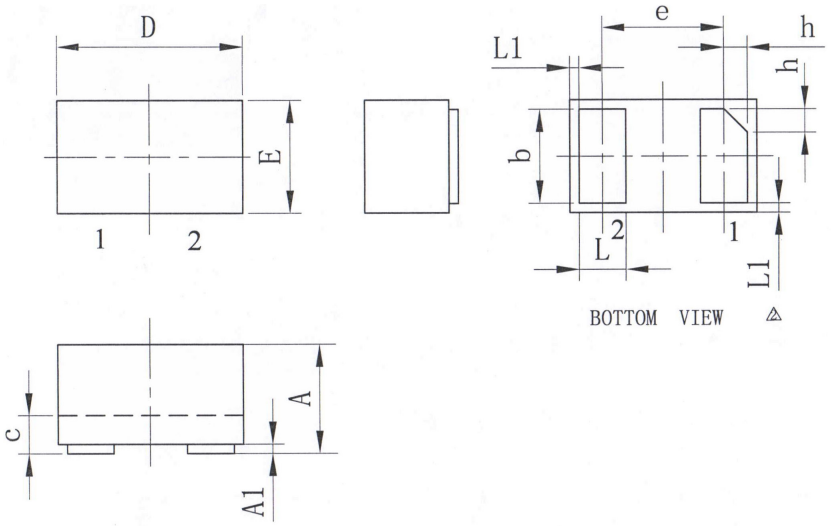


Figure 4. Pulse Waveform-ESD (IEC61000-4-2)

Package Outline Dimensions (DFN1006)



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0.45	0.50	0.55
A1	0	0.02	0.05
b	0.45	0.50	0.55
c	0.12	0.15	0.18
D	0.95	1.00	1.05
e	0.65BSC		
E	0.55	0.60	0.65
L	0.20	0.25	0.30
L1	0.05REF		
h	0.07	0.12	0.17
载体尺寸 (M11)	20*20		

Order Information

Device	Package	Marking	Quantity	HSF Status
GSESLC5VD1006-2U	DFN1006	5	10,000pcs / Reel	RoHS compliant