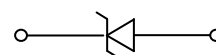


Features

- 120 Watts peak pulse power ($t_p = 8/20\mu s$)
- 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 $\pm 20kV$ contact $\pm 20kV$ air
 - IEC 61000-4-4 (EFT) 40A (5/50ns)
 - IEC 61000-4-5 (Lightning) 6A (8/20 μs)
- 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 ($T_A=25^\circ C$ unless otherwise specified)

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

Electrical Characteristics ($T_A=25^\circ C$ 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	μA
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

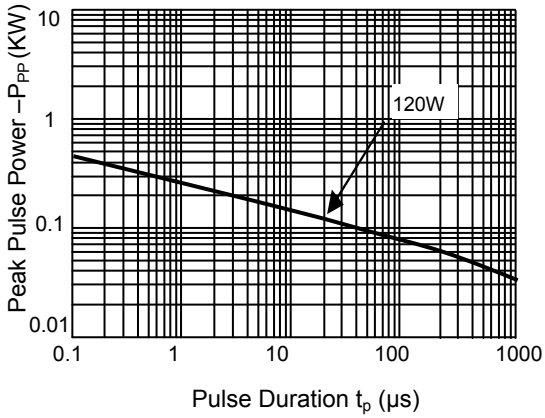


Figure 1. Peak Pulse Power Rating Curve

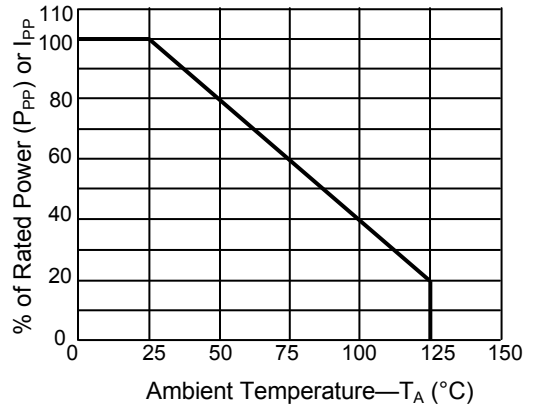


Figure 2. Pulse Derating Curve

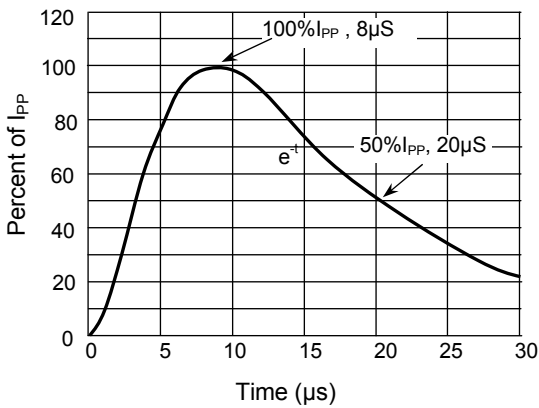


Figure 3. Pulse Waveform-8/20μs

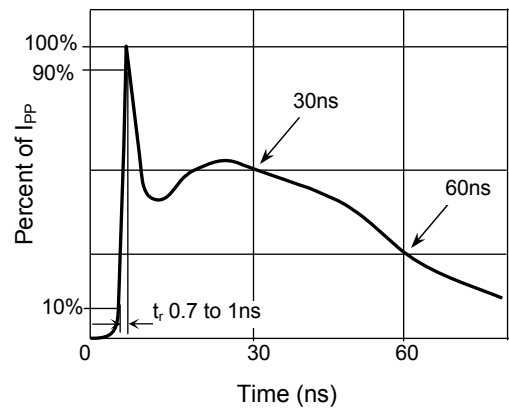
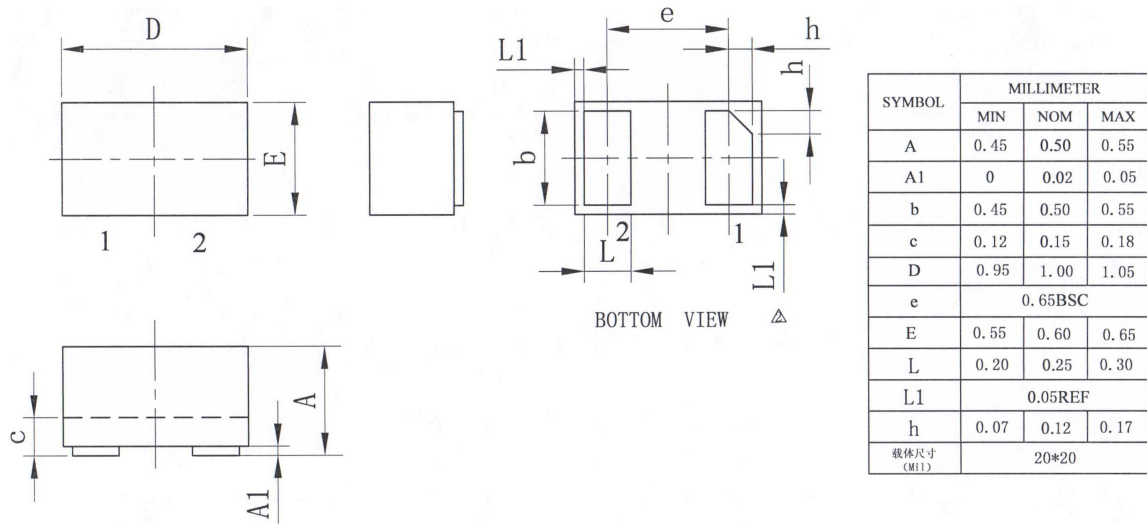


Figure 4. Pulse Waveform-ESD (IEC61000-4-2)

Package Outline Dimensions (DFN1006)



Order Information

Device	Package	Marking	Quantity	HSF Status
GSEZ5U045	DFN1006	5	10,000pcs / Reel	RoHS compliant