GOOD-ARK
SEMICONDUCTOR

GSEZ5B018
ESD Protection Diode

Features

- 80 Watts peak pulse power (T_p=8/20μs)
- DFN1006 package
- Bidirectional configurations
- Protects one I/O port
- Low clamping voltage
- Low Leakage current
- IEC 61000-4-2 ±30kV contact ±30kV air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- RoHS compliant

DFN1006

Schematic Diagram

Applications

- Audio line, speaker, headset, microphone protection
- Human interface devices (Keyboard, Touchpad, Buttons)
- DC power line protection

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (T_P=8/20μS)	P_{PP}	80	W
Peak Pulse Current (T_P=8/20μS)	I_{PP}	8	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	Conditions	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	5	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	5.5	-	-	V
Reverse Leakage Current	I_R	V_R=5V	-	-	1	μA
Clamping Voltage	V_C	I_{PP}=8A, T_P=8/20μS	-	10	-	V
Junction Capacitance	C_J	V_R=0V, f=1MHz	-	18	-	pF

Typical Characteristic Curves

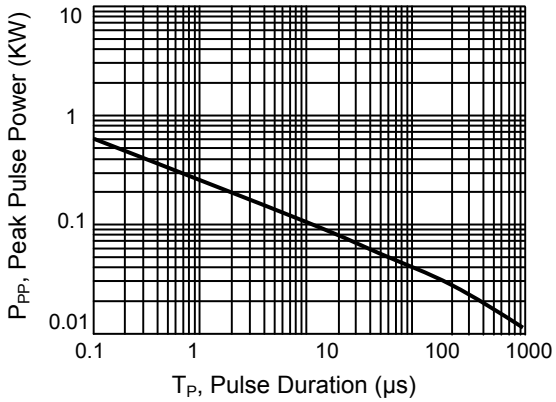


Figure 1. Peak Pulse Power Rating Curve

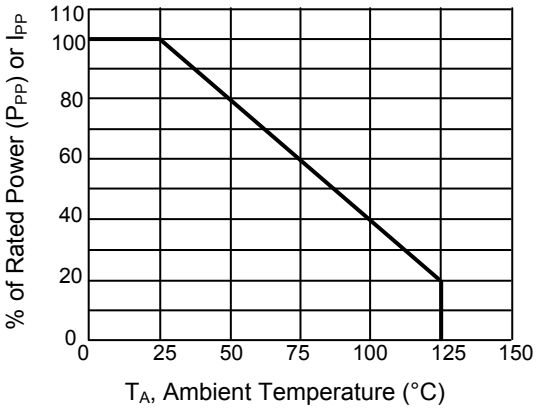


Figure 2. Pulse Derating Curve

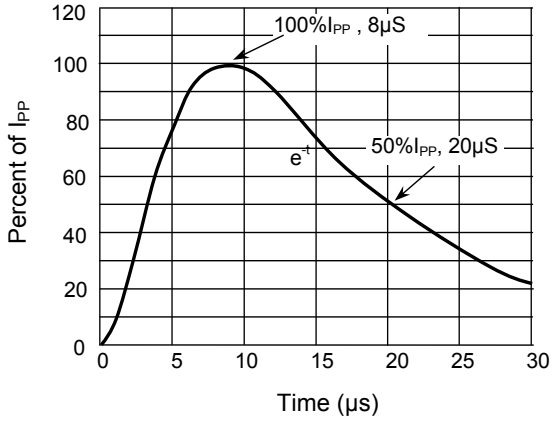


Figure 3. Pulse Waveform-8/20μs

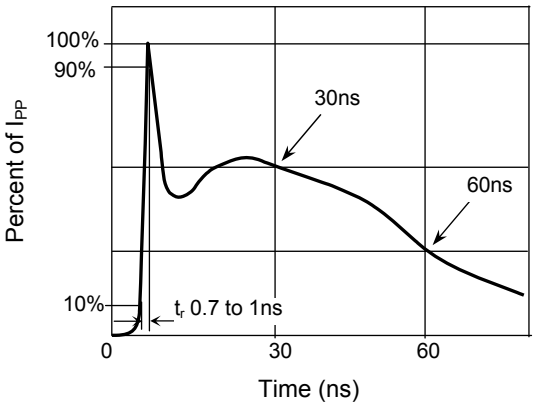
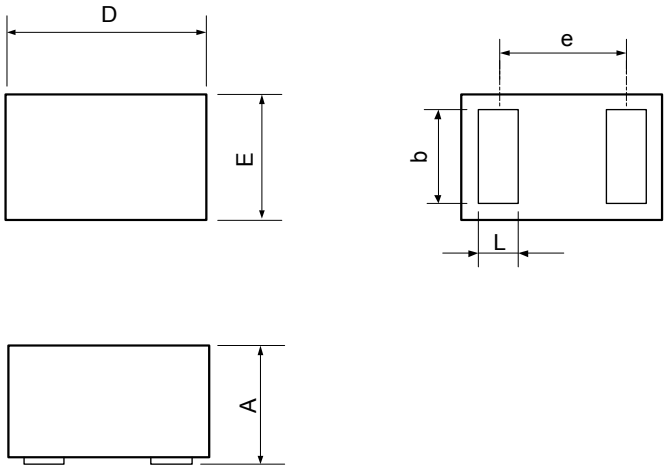


Figure 4. Pulse Waveform-ESD (IEC61000-4-2)

Package Outline Dimensions (DFN1006)



Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
D	0.950	1.050	0.037	0.041
E	0.550	0.650	0.022	0.026
A	0.450	0.550	0.018	0.022
b	0.450	0.550	0.018	0.022
L	0.200	0.300	0.008	0.012
e	0.650 BSC		0.026 BSC	

Order Information

Device	Package	Marking	Carrier	Quantity
GSEZ5B018	DFN1006	C	Tape & Reel	10,000pcs / Reel