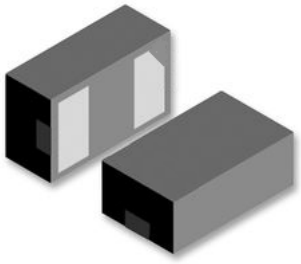
GOOD-ARK
SEMICONDUCTOR

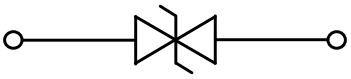
GSEZ5B301
ESD Protection Diode

Features

- 300 Watts peak pulse power (tp = 8/20μs)
- DFN1006 package
- Bidirectional configurations
- Protects one I/O port
- Low clamping voltage
- Low Leakage current
- Protection data/power line to:
  IEC 61000-4-2 ±30kV contact ±30kV air
  IEC 61000-4-4 (EFT) 40A (5/50ns)
  IEC 61000-4-5 (Lightning) 20A (8/20 μs)



DFN1006



Schematic Diagram

Applications

- Smart Phones
- e-Readers
- Notebooks
- Digital Cameras
- Portable Devices
- Audio and Video Equipment

Absolute Maximum Ratings

(T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (T_P=8/20μS)	P_{PP}	300	W
Peak Pulse Current (t_P = 8/20μS)	I_{PP}	20	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	mbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	V_{RWM}		-	-	5	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	6.0	6.8	-	V
Reverse Leakage Current	I_R	V_R=5V	-	-	1	μA
Clamping Voltage	V_C	I_{PP}=20A,T_P=8/20μS	-	-	15	V
Junction Capacitance	C_J	V_R=0V,f=1MHz	-	30	-	pF

Typical Characteristic Curves

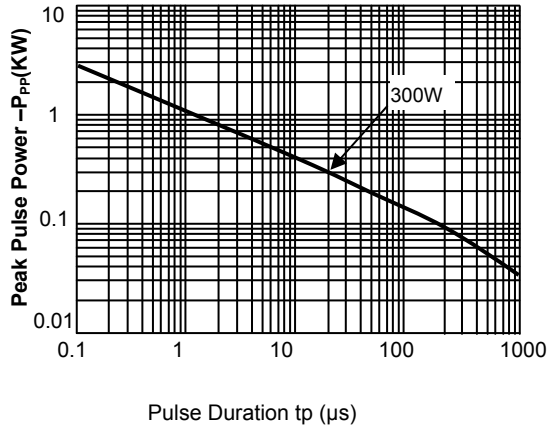


Fig 1 : Peak Pulse Power Rating Curve

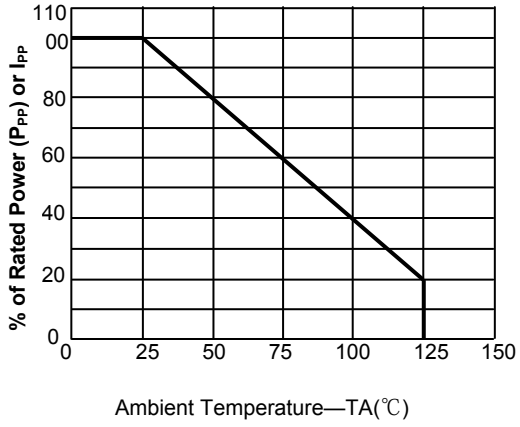


Fig 2 : Pulse Derating Curve

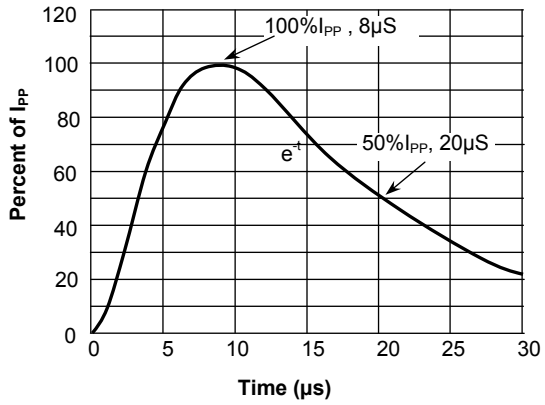


Fig 3 : Pulse Waveform-8/20μs

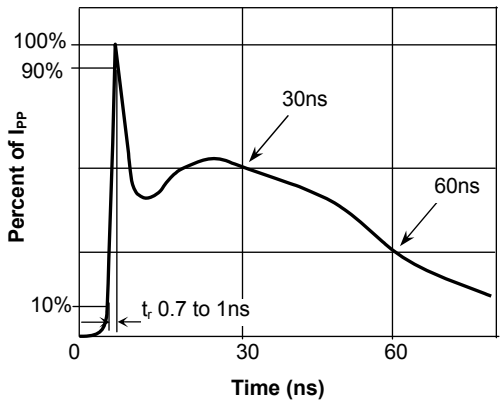
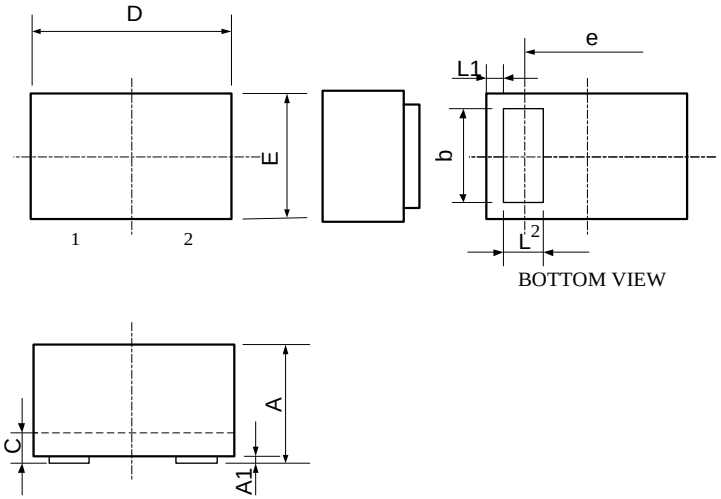


Fig 4 : Pulse Waveform-ESD(IEC61000-4-2)

Package Outline Dimensions

DFN1006



Symbol	milimeter		
	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

Order Information

Device	Package	Marking	Carrier	Quantity	HSF Status
GSEZ5B301	DFN1006	VV	Tape & Reel	10,000pcs / Reel	RoHS compliant