

Features

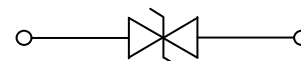
- Ultra small package: 1.0x0.6x0.5mm
- Protects one data or power line
- Ultra low leakage: nA level
- Low operating voltage: 5V
- Low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: ±30kV
 - Contact discharge: ±30kV
 - IEC61000-4-5 (Lightning) 15A (8/20µs)



DFN1006

Applications

- Cellular handsets and accessories
- Personal digital assistants
- Notebooks and handhelds
- Portable instrumentation
- Digital cameras
- Peripherals
- Audio players
- Keypads, side keys, LCD displays



Schematic Diagram

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20µs)	P _{pk}	200	W
Peak Pulse Current (8/20µs)	I _{PP}	15	A
ESD per IEC 61000-4-2 (Air)	V _{ESD}	±30	kV
ESD per IEC 61000-4-2 (Contact)		±30	
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

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

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V _{RWM}	-	-	-	5	V
Breakdown Voltage	V _{BR}	I _T =1mA	6	-	-	V
Reverse Leakage Current	I _R	V _{RWM} =5V	-	-	0.2	µA
Clamping Voltage	V _C	I _{PP} =1A	-	-	8	V
Clamping Voltage	V _C	I _{PP} =15A	-	-	14	V
Junction Capacitance	C _J	V _R =0V, F=1MHz	-	30	50	pF

Typical Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise Specified)

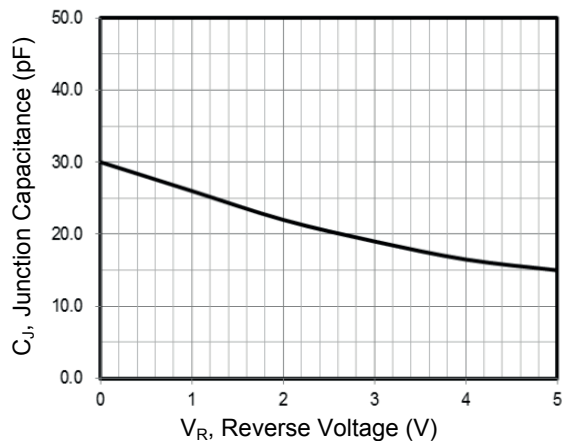


Figure 1. Junction Capacitance Vs. Reverse Voltage

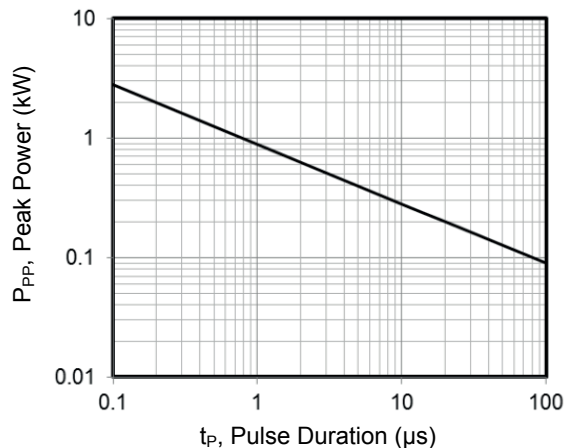


Figure 2. Peak Pulse Power Vs. Pulse Time

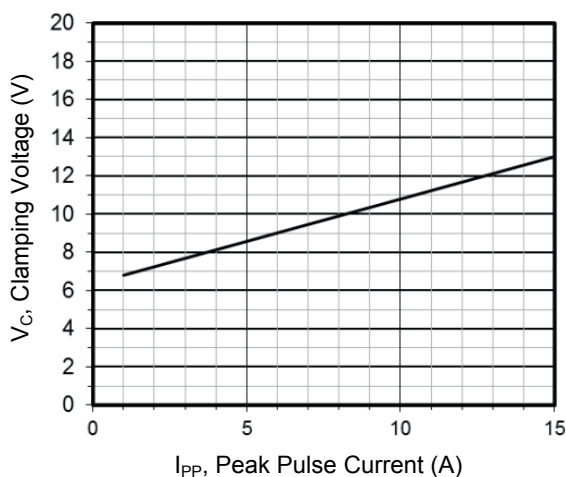


Figure 3. Clamping Voltage Vs. Peak Pulse Current
 $(t_p=8/20\mu\text{s})$

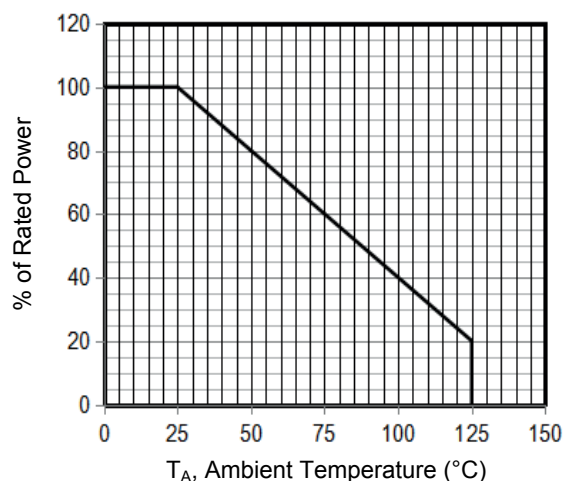


Figure 4. Power Derating Curve

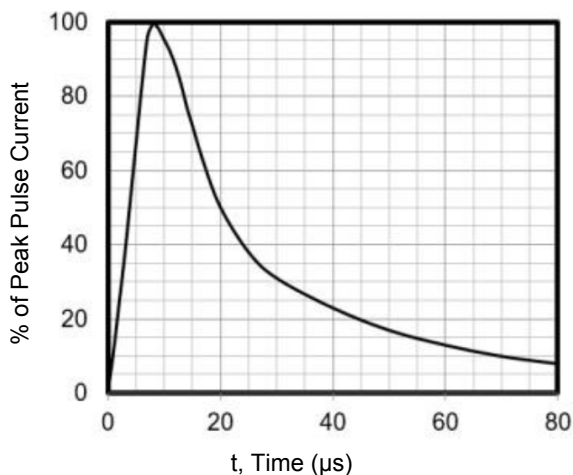


Figure 5. 8 X 20 μs Pulse Waveform

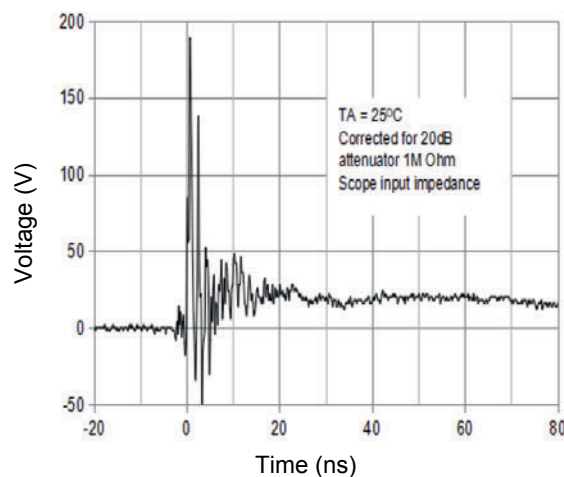
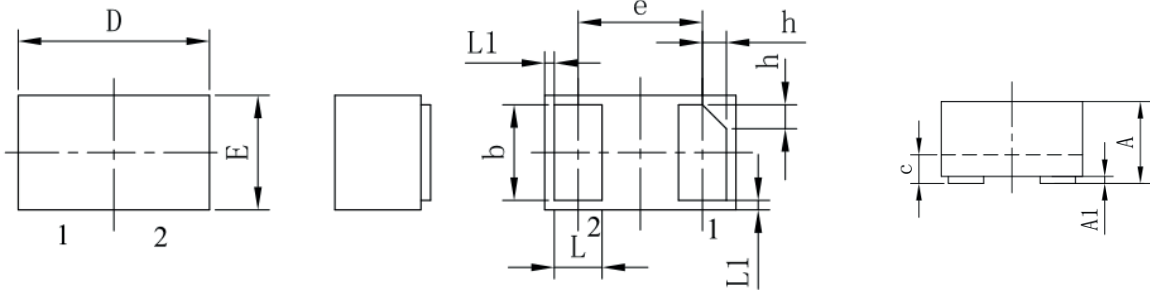


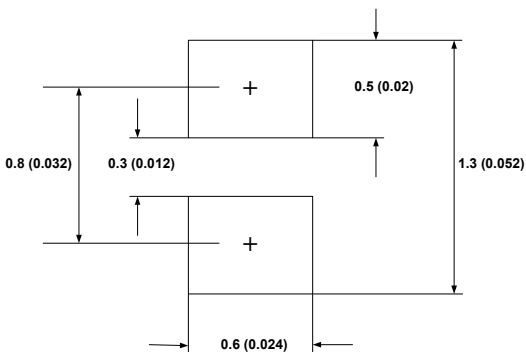
Figure 6. ESD Clamping Voltage
8 kV Contact per IEC61000-4-2

Package Outline Dimensions (DFN1006)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.45	0.55	0.018	0.022
A1	0.00	0.05	0.000	0.002
b	0.45	0.55	0.018	0.022
c	0.12	0.18	0.005	0.007
D	0.95	1.05	0.037	0.041
e	0.65 BSC		0.026 BSC	
E	0.55	0.65	0.022	0.026
L	0.20	0.30	0.008	0.012
L1	0.05 REF		0.002 REF	
h	0.07	0.17	0.003	0.007

Recommended Pad Layout



Order Information

Device	Package	Marking	Carrier	Quantity	HSF Status
GSEZ5B302	DFN1006	B4	Tape & Reel	10,000pcs / Reel	RoHS compliant