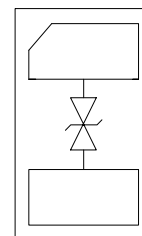


Features

- Ultra small package: 0.6x0.3x0.3mm
- Ultra low capacitance: 0.2pF typical
- Ultra low leakage: nA level
- Operating voltage: up to 7V
- Low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: ±25kV
 - Contact discharge: ±20kV
 - IEC61000-4-5 (Lightning) 2.5A (8/20µs)
- RoHS compliant



DFN1006



Schematic Diagram

Applications

- Cellular handsets and accessories
- Display ports
- MDDI ports
- USB ports
- Digital visual interface (DVI)
- PCI express and serial SATA ports

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20µs)	P _{pk}	37.5	W
Peak Pulse Current (8/20µs)	I _{pp}	2.5	A
ESD per IEC 61000-4-2 (Air)	V _{ESD}	±25	kV
ESD per IEC 61000-4-2 (Contact)		±20	
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}	-	-	-	7	V
Breakdown Voltage	V _{BR}	I _T =1mA	8.5	-	-	V
Reverse Leakage Current	I _R	V _{RWM} =7V	-	-	0.2	µA
Clamping Voltage	V _C	I _{pp} =1A (8 x 20µs pulse)	-	10.5	13	V
Clamping Voltage	V _C	I _{pp} =2.5A (8 x 20µs pulse)	-	13	15	V
Junction Capacitance	C _J	V _R =0V, F=1MHz	-	0.2	0.4	pF
Junction Capacitance	C _J	V _R =0V, F=3GHz	-	0.15	0.3	pF

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

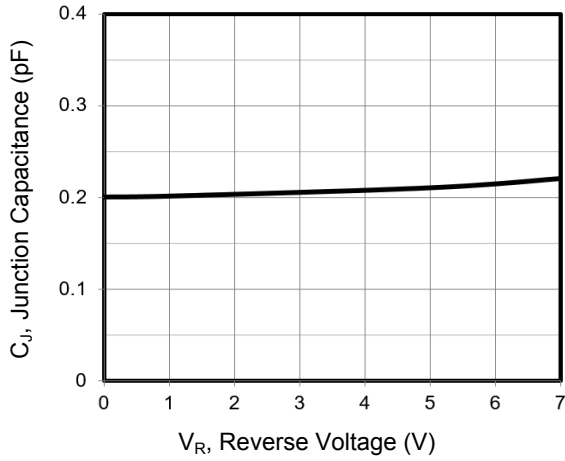


Figure 1. Junction Capacitance Vs. Reverse Voltage

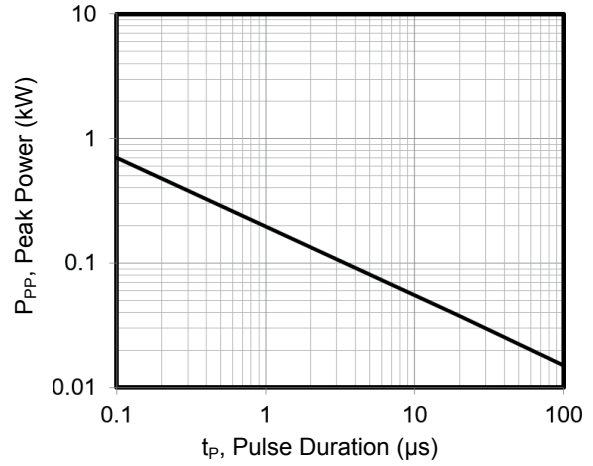


Figure 2. Peak Pulse Power Vs. Pulse Time

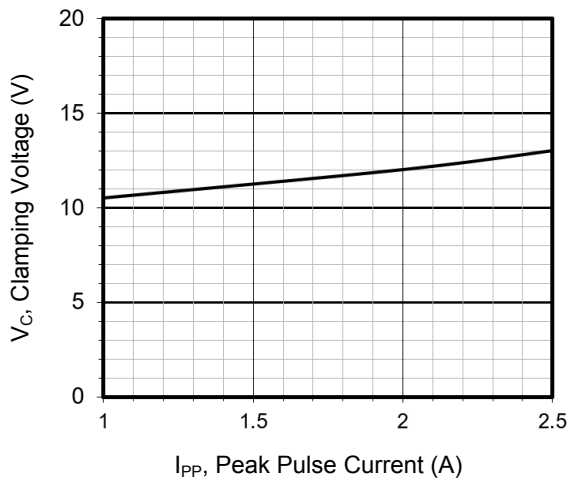


Figure 3. Clamping Voltage Vs. Peak Pulse Current

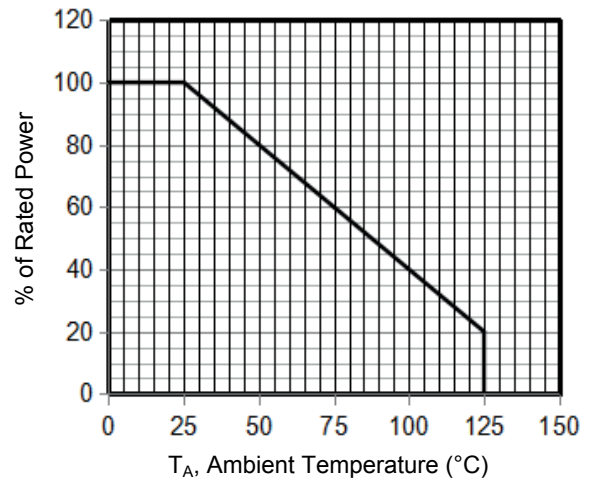


Figure 4. Power Derating Curve

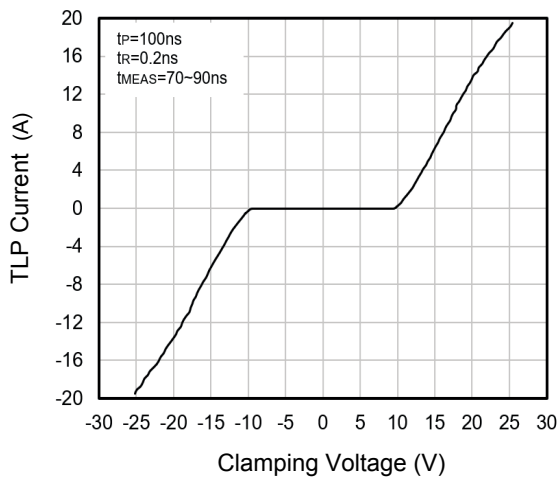


Figure 5. Transmission Line Pulse (TLP) Measurement

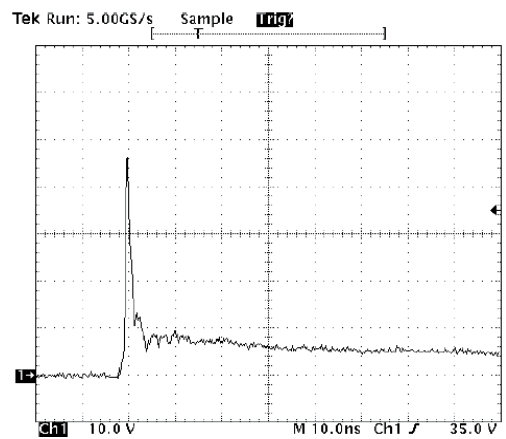
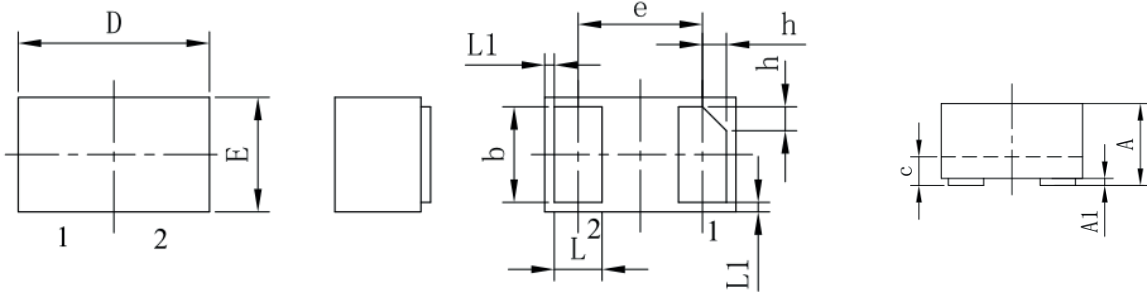


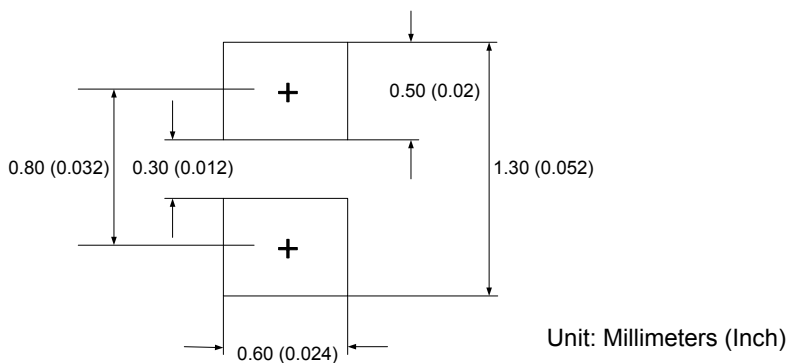
Figure 6. ESD Clamping Voltage 8 kV Contact per IEC61000-4-2

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
GSEZ7B002	DFN1006	EV	Tape & Reel	10,000pcs / Reel