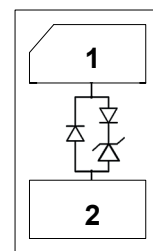


Features

- Ultra low capacitance: 0.6pF typical
- Ultra low leakage: nA level
- Operating voltage: 3.3V
- Low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 25\text{kV}$
 - Contact discharge: $\pm 20\text{kV}$
 - IEC 61000-4-5 (Lightning) 5A (8/20 μs)
- 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 (8/20 μs) | P _{pk} | 80 | W |
| Peak Pulse Current (8/20 μs) | I _{pp} | 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} | - | - | - | 3.3 | V |
| Breakdown Voltage | V _{BR} | I _T =1mA | 4.2 | - | - | V |
| Reverse Leakage Current | I _R | V _{RWM} =3.3V | - | - | 0.2 | μA |
| Clamping Voltage | V _C | I _{pp} =1A (8 x 20 μs pulse) | - | - | 9 | V |
| Clamping Voltage | V _C | I _{pp} =5A (8 x 20 μs pulse) | - | - | 16 | V |
| Junction Capacitance | C _J | V _R =0V, F=1MHz | - | 0.6 | - | pF |

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

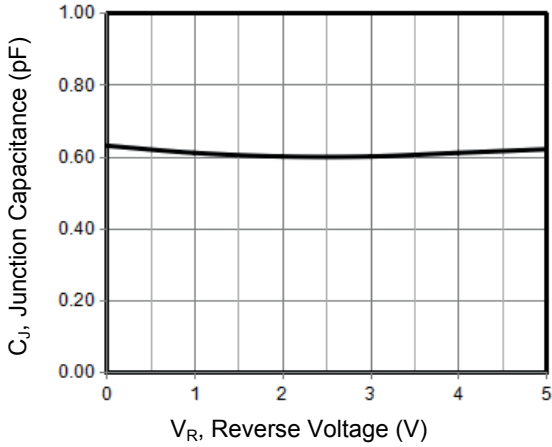


Figure 1. Junction Capacitance vs. Reverse Voltage

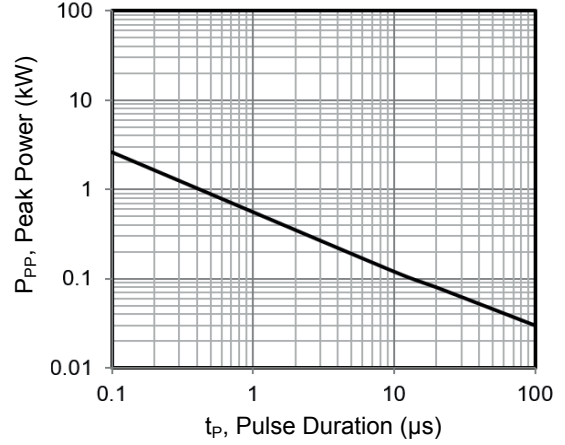


Figure 2. Peak Pulse Power vs. Pulse Time

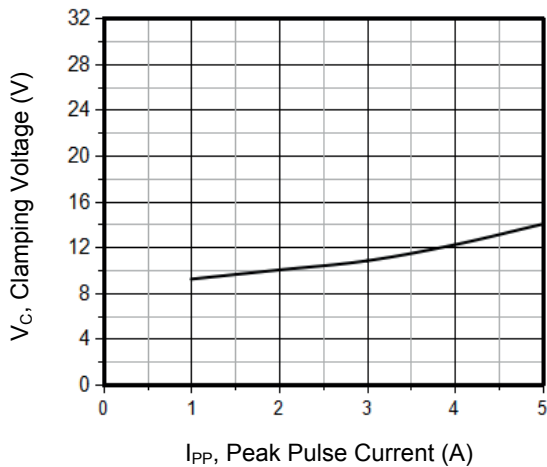


Figure 3. Clamping Voltage vs. Peak Pulse Current

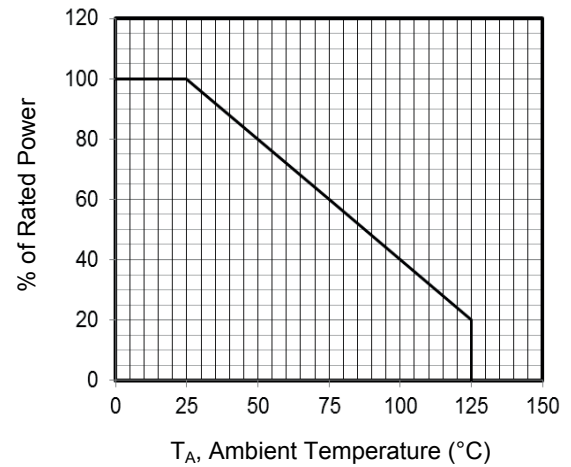


Figure 4. Power Derating Curve

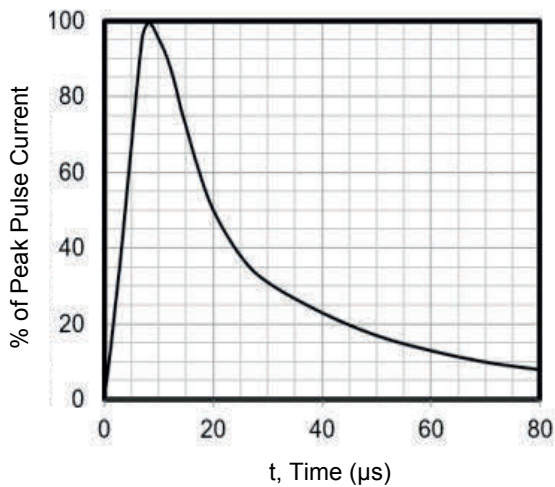
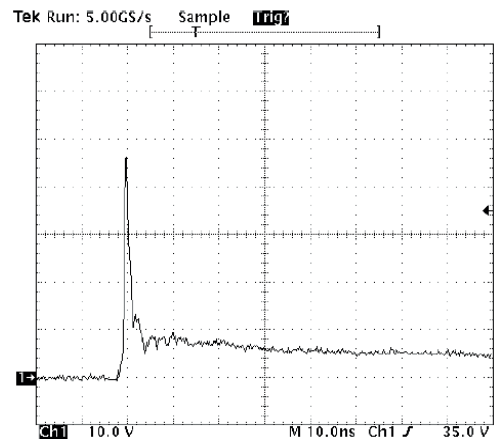
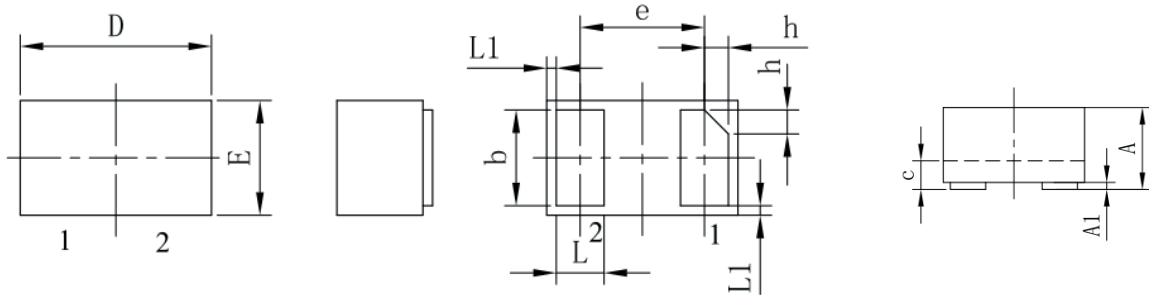


Figure 5. 8 X 20 μs Pulse Waveform



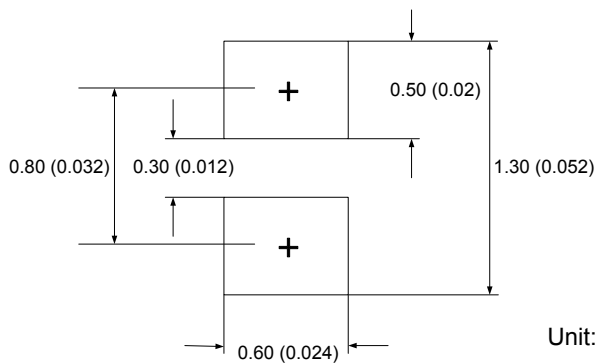
Note: Data is taken with a 10x attenuator
Figure 6. ESD Clamping Voltage
8 kV Contact per IEC61000-4-2

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



Unit: Millimeters (Inches)

Order Information

| Device | Package | Marking | Carrier | Quantity |
|------------|---------|---------|-------------|-------------------|
| GSEZ3U0061 | DFN1006 | 3U | Tape & Reel | 10,000 pcs / Reel |