

## Features

- Bi-directional ESD protection diode
- Excellent clamping capability
- Low load capacitance
- Low leakage
- Fast response time
- ESD per IEC61000-4-2 >30KV (Air&Contact Model)



DFN1006



Schematic Diagram

## Applications

- Portable handheld devices
- Keypads, data lines, buttons
- Notebook computers
- Digital Cameras
- Portable GPS
- MP3 players

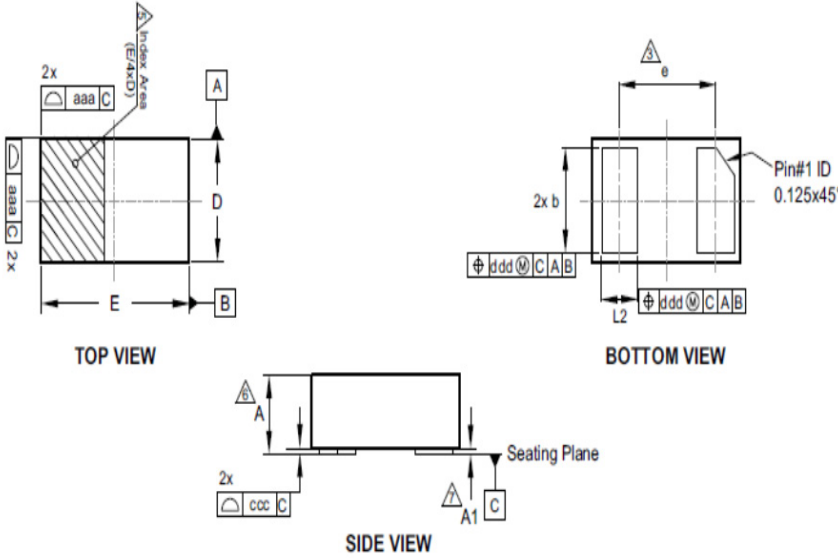
## Absolute Maximum Ratings (T<sub>A</sub>=25°C unless otherwise specified)

| Parameter  | Symbol           | Max.        | Unit |
|--|------------------|-------------|------|
| Peak Pulse Power   | P <sub>PP</sub>  | 30          | W    |
| Maximum Reverse Peak Pulse Current (IEC61000-4-5 8/20µs pulse) | I <sub>PP</sub>  | 2.5         | A    |
| Maximum Operation Junction Temperature                         | T <sub>J</sub>   | -55 To +125 | °C   |
| Storage Temperature Range                                      | T <sub>STG</sub> | -55 To +150 | °C   |

## Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise specified)

| Parameter                 | Symbol           | Conditions                                    | Min. | Typ. | Max. | Unit |
|---------------------------|------------------|---|------|------|------|------|
| Reverse Stand-Off Voltage | V <sub>RWM</sub> | -   | -    | -    | 3.3  | V    |
| Reverse Leakage Current   | I <sub>R</sub>   | V <sub>RWM</sub> =3.3V                        | -    | -    | 1    | uA   |
| Reverse Breakdown Voltage | V <sub>BR</sub>  | I <sub>r</sub> =1mA                           | 4.3  | -    | 6.5  | V    |
| Clamping Voltage          | V <sub>CL</sub>  | I <sub>PP</sub> =1A, T <sub>P</sub> =8/20uS   | -    | -    | 8    | V    |
|                           |                  | I <sub>PP</sub> =2.5A, T <sub>P</sub> =8/20uS | -    | -    | 12   | V    |
| Junction Capacitance      | C <sub>J</sub>   | V <sub>R</sub> =0V, f=1MHz                    | -    | 5    | -    | pF   |

**Product Dimensions** DFN1006

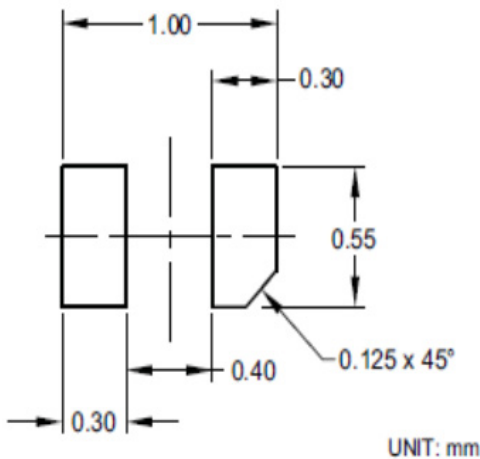


| Symbol | Millimeter |      |      |
|--------|------------|------|------|
|        | Min        | Nom  | Max  |
| A      | 0.47       | 0.51 | 0.55 |
| A1     | 0.00       | 0.02 | 0.05 |
| b      | 0.45       | 0.50 | 0.55 |
| D      | 0.60BSC    |      |      |
| E      | 1.00BSC    |      |      |
| e      | 0.65BSC    |      |      |
| L      | 0.20       | 0.25 | 0.30 |
| aaa    | 0.05       |      |      |
| ccc    | 0.03       |      |      |
| ddd    | 0.10       |      |      |

**Notes:**

1. Dimensions and tolerancing conform to ASME Y14.5-2009.
  2. All dimensions are in millimeters.
  3. "e" represents the terminal grid pitch.
  4. N is the total number of terminals.
- △ A visual index feature must be located within the hatched area. Typical index feature (chamfer) must be located on the edge of the Pin#1 feature.
  - △ This dimension includes stand-off height "A1" and packaged body thickness, but does not include attached feature e.g. external heatsink or chip capacitors, an internal heatslug is not considered as attached feature.
  - △ Dimension "A1" is primarily terminal plating, and does not include small metal protrusions.

**Recommended Pad Layout**



**Order Information**

| Device    | Package | Marking | Carrier     | Quantity  | HSF Status     |
|-----------|---------|---------|-------------|-----------|----------------|
| GSEZ3B050 | DFN1006 | 3B      | Tape & Reel | 12,000pcs | RoHS compliant |