

### Features

- Low operating voltage:  $\pm 12\text{V}$
- Ultra low capacitance: 7pF typical
- Ultra low leakage: nA level
- Low clamping voltage
- 2-pin leadless package
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    - Air discharge:  $\pm 30\text{kV}$
    - Contact discharge:  $\pm 30\text{kV}$
  - IEC61000-4-5 (Lightning) 8A (8/20 $\mu\text{s}$ )
- RoHS Compliant

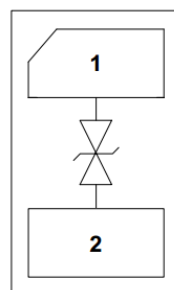
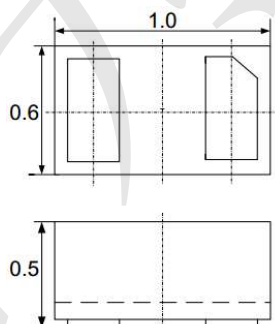
### Mechanical Characteristics

- Package: DFN1006-2 (1.0 $\times$ 0.6 $\times$ 0.5mm)
- Lead Finish: NiPdAu
- Case Material: "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020
- Terminal Connections: See Diagram Below
- Shipping Qty :10000/7Inch Tape & Reel

### Applications

- Cellular Handsets & Accessories
- Personal Digital Assistants
- Display Port
- MDDI Ports
- Audio Players
- PCI Express
- Serial ATA

### Dimensions and Pin Configuration

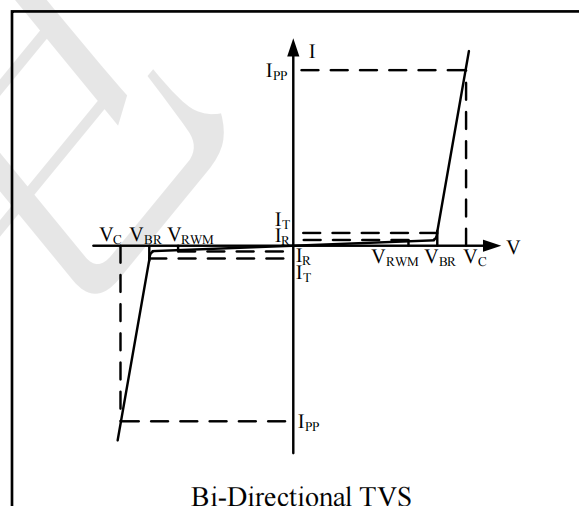


### Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

| Parameter                       | Symbol           | Value       | Unit |
|---------------------------------|------------------|-------------|------|
| Peak Pulse Power (8/20μs)       | P <sub>PK</sub>  | 150         | W    |
| Peak Pulse Current (8/20μs)     | I <sub>PP</sub>  | 8           | A    |
| ESD per IEC 61000-4-2 (Air)     | V <sub>ESD</sub> | ±30         | kV   |
| ESD per IEC 61000-4-2 (Contact) |                  | ±30         |      |
| Operating Temperature Range     | T <sub>J</sub>   | -55 to +125 | °C   |
| Storage Temperature Range       | T <sub>stg</sub> | -55 to +150 | °C   |

### Electrical Characteristics (TA=25°C unless otherwise specified)

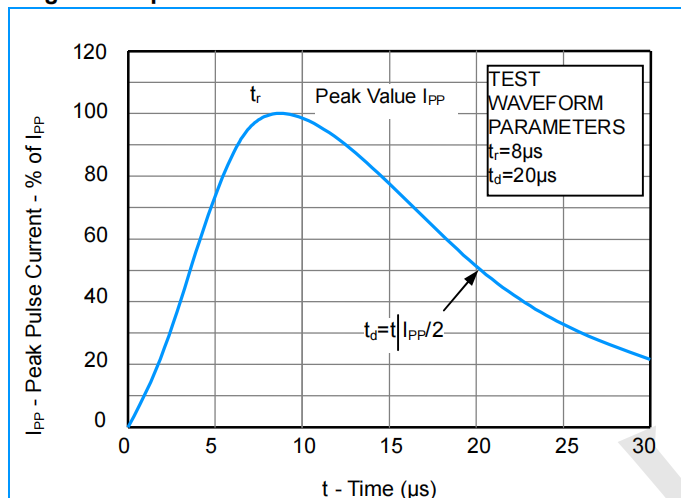
| Symbol           | Parameter                                  |
|------------------|--------------------------------------------|
| V <sub>RWM</sub> | Nominal Reverse Working Voltage            |
| I <sub>R</sub>   | Reverse Leakage Current @ V <sub>RWM</sub> |
| V <sub>BR</sub>  | Reverse Breakdown Voltage @ I <sub>T</sub> |
| I <sub>T</sub>   | Test Current for Reverse Breakdown         |
| V <sub>C</sub>   | Clamping Voltage @ I <sub>PP</sub>         |
| I <sub>PP</sub>  | Maximum Peak Pulse Current                 |
| C <sub>ESD</sub> | Parasitic Capacitance                      |
| V <sub>R</sub>   | Reverse Voltage                            |
| f                | Small Signal Frequency                     |



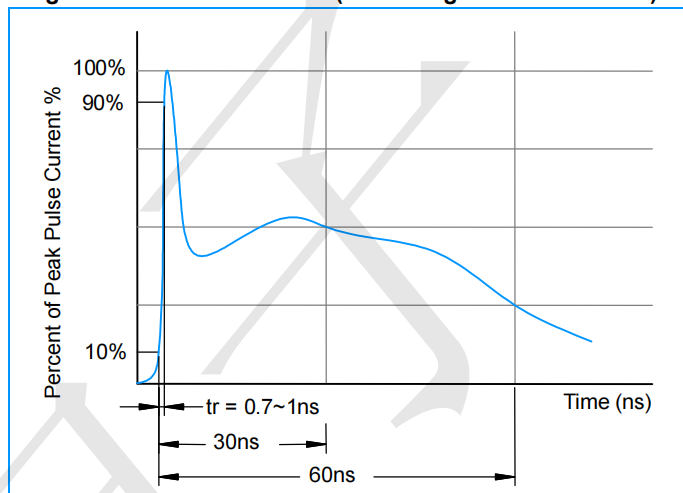
| Parameter               | Symbol           | Min  | Typ | Max | Unit | Test Condition                         |
|-------------------------|------------------|------|-----|-----|------|----------------------------------------|
| Reverse Working Voltage | V <sub>RWM</sub> |      |     | 12  | V    |                                        |
| Breakdown Voltage       | V <sub>BR</sub>  | 13.7 |     |     | V    | I <sub>T</sub> = 1mA                   |
| Reverse Leakage Current | I <sub>R</sub>   |      |     | 100 | nA   | V <sub>RWM</sub> = 12V                 |
| Clamping Voltage        | V <sub>C</sub>   |      |     | 12  | V    | I <sub>PP</sub> = 8 A (8 x 20μs pulse) |
| Junction Capacitance    | C <sub>J</sub>   |      | 7   | 10  | pF   | V <sub>R</sub> = 0V, f = 1MHz          |

## Characteristic Curves

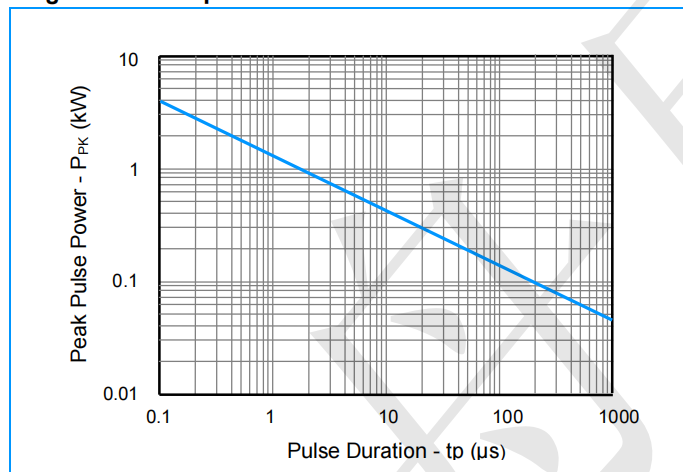
**Fig1. 8/20 $\mu$ s Pulse Waveform**



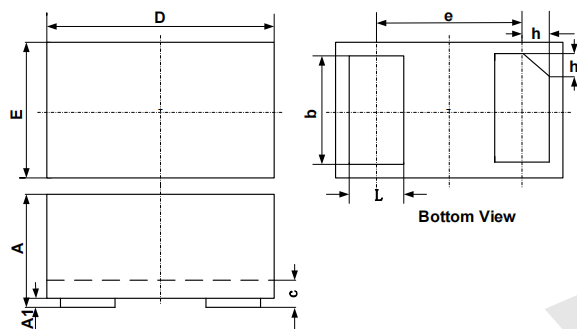
**Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)**



**Fig3. Non - Repetitive Peak Pulse Power vs. Pulse Time**

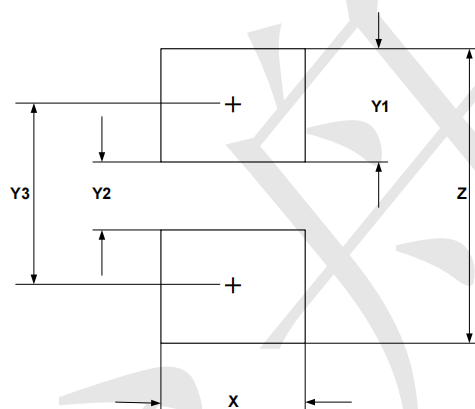


## Outline Drawing - DFN1006-2



| SYM | DIMENSIONS  |      |      |           |       |       |
|-----|-------------|------|------|-----------|-------|-------|
|     | MILLIMETERS |      |      | INCHES    |       |       |
|     | MIN         | NOM  | MAX  | MIN       | NOM   | MAX   |
| A   | 0.45        | 0.50 | 0.55 | 0.018     | 0.020 | 0.022 |
| A1  | 0.00        | 0.02 | 0.05 | 0.000     | 0.001 | 0.002 |
| b   | 0.45        | 0.50 | 0.55 | 0.018     | 0.020 | 0.022 |
| c   | 0.12        | 0.15 | 0.18 | 0.005     | 0.006 | 0.007 |
| D   | 0.95        | 1.00 | 1.05 | 0.037     | 0.039 | 0.041 |
| e   | 0.65 BSC    |      |      | 0.026 BSC |       |       |
| E   | 0.55        | 0.60 | 0.65 | 0.022     | 0.024 | 0.026 |
| L   | 0.20        | 0.25 | 0.30 | 0.008     | 0.010 | 0.012 |
| h   | 0.07        | 0.12 | 0.17 | 0.003     | 0.005 | 0.007 |

## Land Pattern - DFN1006-2



| SYM | DIMENSIONS  |        |
|-----|-------------|--------|
|     | MILLIMETERS | INCHES |
| X   | 0.60        | 0.024  |
| Y1  | 0.50        | 0.020  |
| Y2  | 0.30        | 0.012  |
| Y3  | 0.80        | 0.032  |
| Z   | 1.30        | 0.052  |

单击下面可查看定价，库存，交付和生命周期等信息

[>>TECH PUBLIC\(台舟\)](#)