

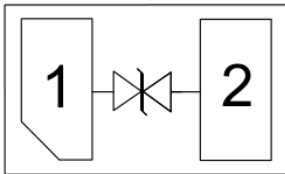
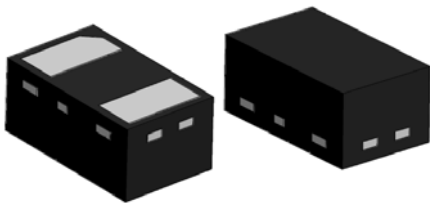
### Features

- 240W (8/20 $\mu$ s) Peak Pulse Power
- Low Capacitance ESD Protection
- DFN1006-2 Package
- RoHS Compliant
- Matte Tin Lead finish (Pb-Free)
- Protect One High Speed Data Line  $\diamond$  Meet IEC61000-4-2 Level 4:  
Contact Discharge > 20kV Air Discharge > 20kV

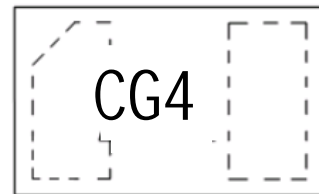
### Applications

- Communication System
- Portable Instrumentation
- Audio and Video Equipment
- Computers and Peripherals
- USB 1.1, USB 1.0 Ports

### Circuit Diagram



### Package Outline



CG4= Device Code

### Ordering information

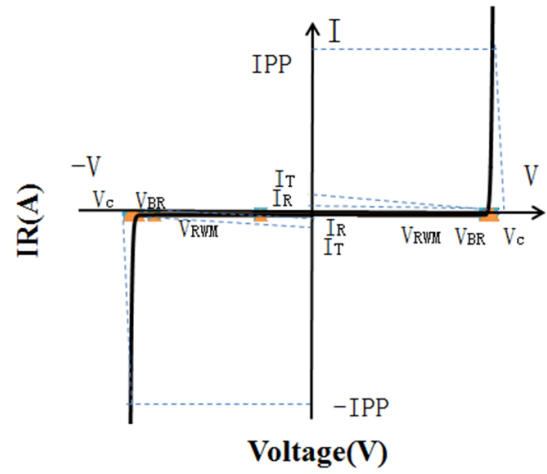
| Device       | Package   | Reel Size | Qty / Reel |
|--------------|-----------|-----------|------------|
| LXE1006F24VB | DFN1006-2 | 7 inch    | 10000      |

### Maximum Ratings (Ta = 25°C)

| Symbol                     | Parameter                            | Value       | Unit |
|----------------------------|--------------------------------------|-------------|------|
| P <sub>PK</sub>            | Peak Pulse Power                     | 240         | W    |
| I <sub>PP</sub>            | Peak Pulse Current                   | 4           | A    |
| V <sub>ESD (Contact)</sub> | Contact ESD Voltage per IEC61000-4-2 | 20          | kV   |
| V <sub>ESD (Air)</sub>     | Air ESD Voltage per IEC61000-4-2     | 20          | kV   |
| T <sub>J</sub>             | Junction Temperature                 | -55 to +150 | °C   |
| T <sub>STG</sub>           | Storage Temperature                  | -55 to +150 | °C   |

**Portion Electronics Parameter**

| Symbol   | Parameter                          |
|----------|------------------------------------|
| $I_T$    | Test Current                       |
| $I_{PP}$ | Maximum Reverse Peak Pulse Current |
| $V_C$    | Clamping Voltage @ $I_C$           |

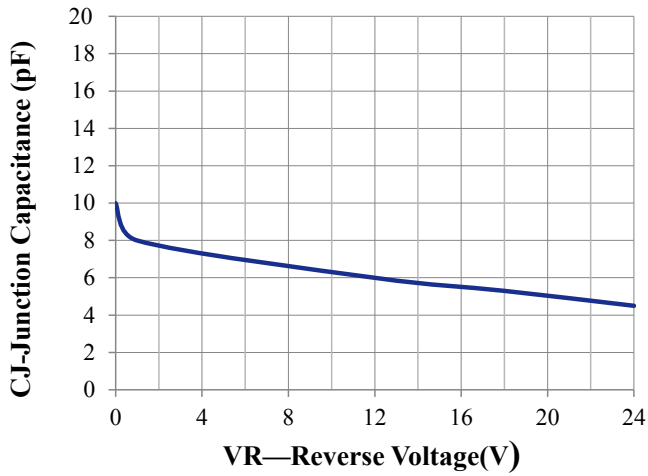


**Electrical Characteristics(Ta=25°C)**

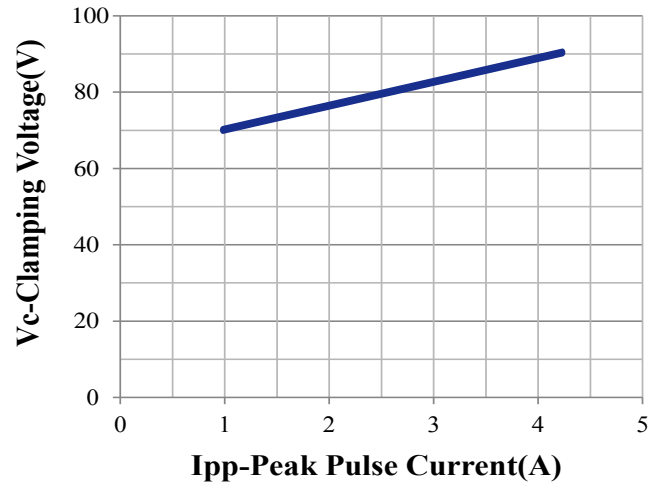
| Symbol    | Parameter                    | Conditions                 | Min  | Typ | Max | Unit    |
|-----------|------------------------------|----------------------------|------|-----|-----|---------|
| $V_{RWM}$ | Reverse Working Peak Voltage |                            |      |     | 24  | V       |
| $V_{BR}$  | Reverse Breakdown Voltage    | $I_T = 1mA$                | 26.7 | 29  | 31  | V       |
| $I_R$     | Reverse Leakage Current      | $V_{RWM} = 24V$            |      |     | 1   | $\mu A$ |
| $V_C$     | Clamping Voltage             | $I_{PP} = 1A (8/20\mu s)$  |      |     | 45  | V       |
| $V_C$     | Clamping Voltage             | $I_{PP} = 4A (8/20 \mu s)$ |      |     | 60  | V       |
| $C_J$     | Capacitance                  | $V_R = 0V, f = 1MHz$       |      | 10  | 15  | pF      |



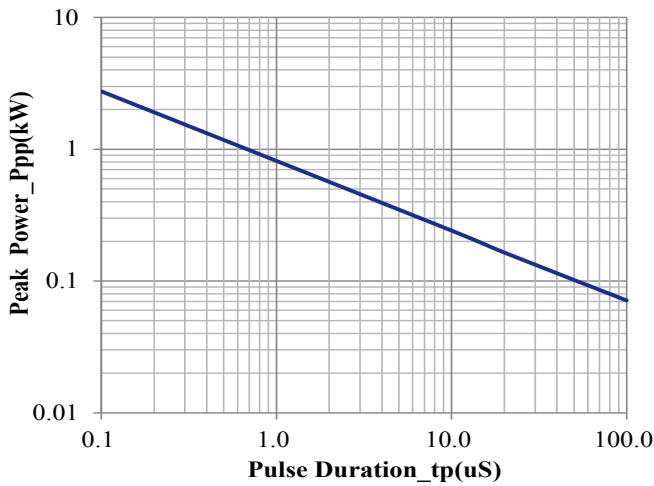
**TYPICAL CHARACTERISTICS**



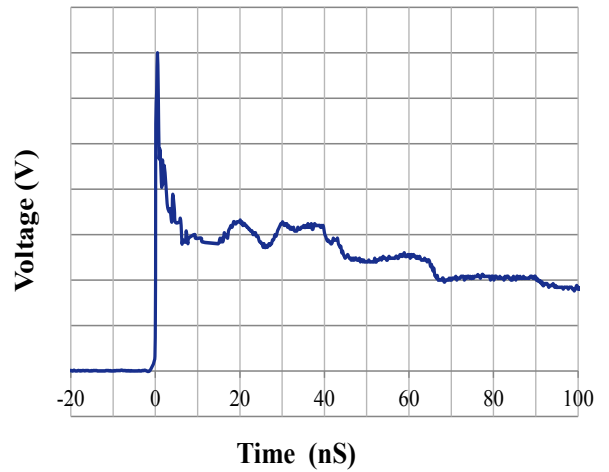
**Junction Capacitance vs. Reverse Voltage**



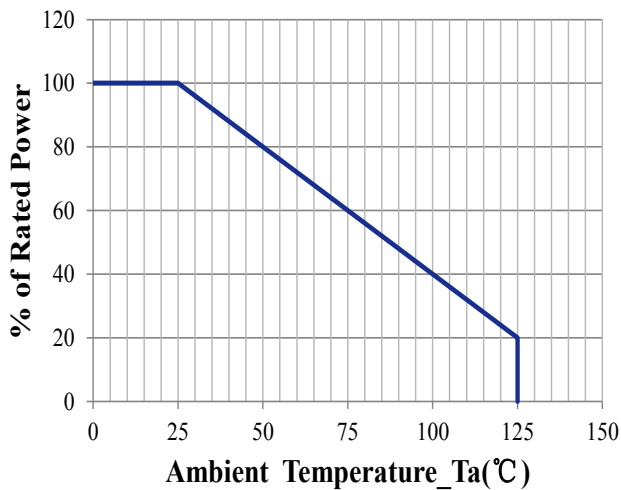
**Clamping Voltage vs. Peak Pulse Current**



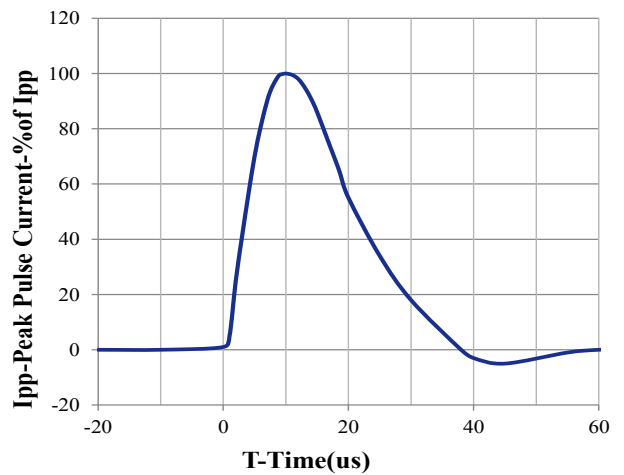
**Peak Pulse Power vs. Pulse Time**



**IEC61000-4-2 Pulse Waveform**

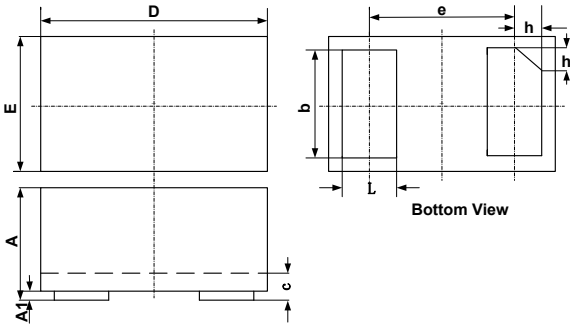


**Power Derating Curve**



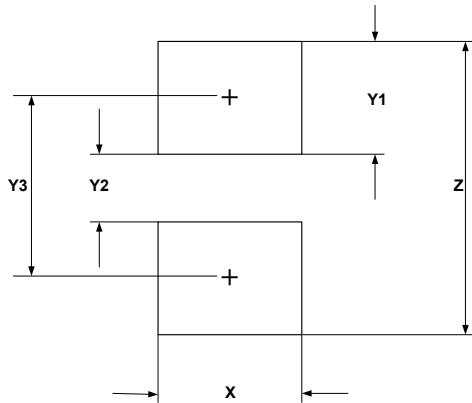
**8 X 20us Pulse Waveform**

**DFN1006-2 Package Outline Drawing**



| 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 |

**Suggested Land Pattern**



| 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  |