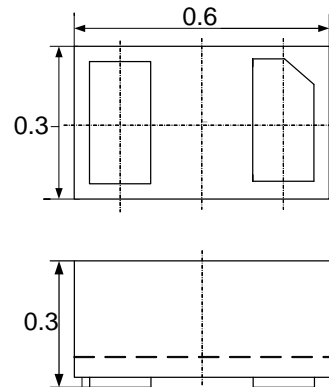


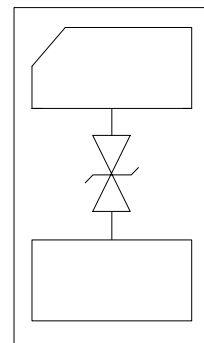
### Features

- Ultra small package: 0.6x0.3x0.3mm
- Protects one data or power line
- Very low capacitance: 2.5pF typical
- Ultra low leakage: nA level
- Operating voltage: 5V
- Low clamping voltage
- 2-pin leadless package
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    - Air discharge:  $\pm 15\text{kV}$
    - Contact discharge:  $\pm 8\text{kV}$
  - EC61000-4-5 (Lightning) 2A (8/20 $\mu\text{s}$ )
- RoHS compliant

### Dimensions DFN0603-2



### Pin Configuration



### Applications

- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebooks and Handhelds
- Portable Instrumentation
- Digital Cameras
- Peripherals
- Audio Players
- Keypads, Side Keys, USB 2.0, LCD Displays

### Mechanical Characteristics

- Package: DFN0603-2 (0.6x0.3x0.3mm)
- Case Material: "Green" Molding Compound.
- Moisture Sensitivity: Level 3 per J-STD-020
- Terminal Connections: See Diagram Below
- Marking Information: See Below

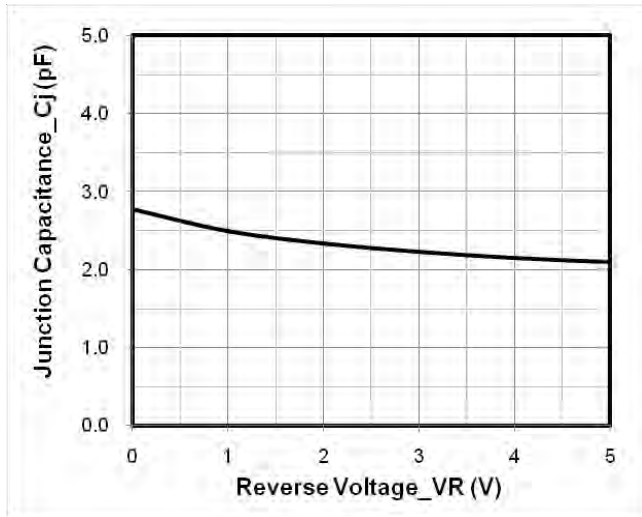
### Absolute Maximum Ratings (T<sub>amb</sub>=25°C unless otherwise specified)

| Parameter                              | Symbol           | Value       | Unit |
|--|------------------|-------------|------|
| Peak Pulse Power (8/20 $\mu\text{s}$ ) | P <sub>pp</sub>  | -           | W    |
| ESD per IEC 61000-4-2 (Air)            | V <sub>ESD</sub> | $\pm 15$    | Kv   |
| ESD per IEC 61000-4-2 (Contact)        |                  | $\pm 8$     |      |
| Operating Temperature Range            | T <sub>J</sub>   | -55 to +125 | °C   |
| Storage Temperature Range              | T <sub>STJ</sub> | -55 to +150 | °C   |

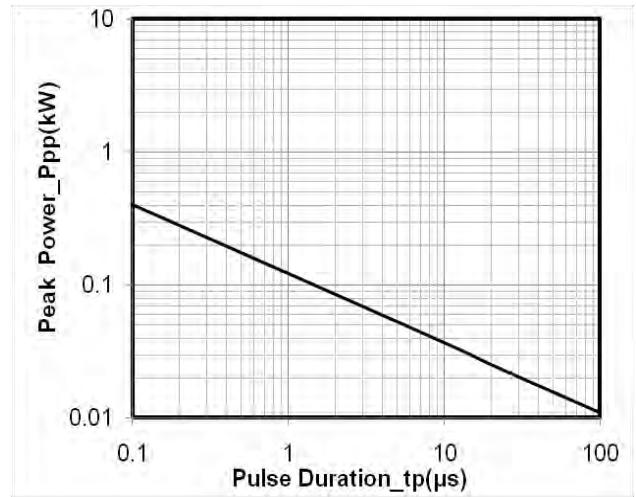
## Electrical Characteristics (TA=25°C unless otherwise specified)

| Part Number | Device Marking | V <sub>RWM</sub><br>(V) | V <sub>BR</sub><br>(V) | I <sub>T</sub><br>(mA) | V <sub>C</sub><br>@1A | V <sub>C</sub> |      | I <sub>R</sub><br>μA<br>(Max) | C<br>(Pf)<br>(Typ.) |
|-------------|----------------|-------------------------|------------------------|------------------------|-----------------------|----------------|------|-------------------------------|---------------------|
|             |                |                         |                        |                        |                       | (Max)          | (@A) |                               |                     |
| LC0521C     | Z6             | 5                       | 6                      | 1                      | 10                    | 10             | 1    | 0.2                           | 2.5                 |

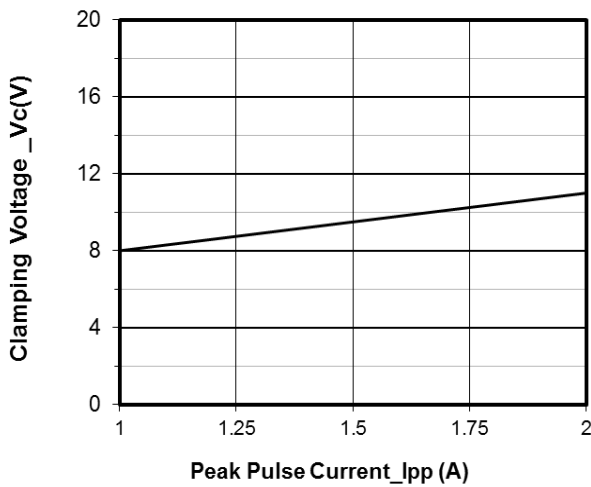
## Typical Performance Characteristics (T<sub>A</sub>=25°C unless otherwise Specified)



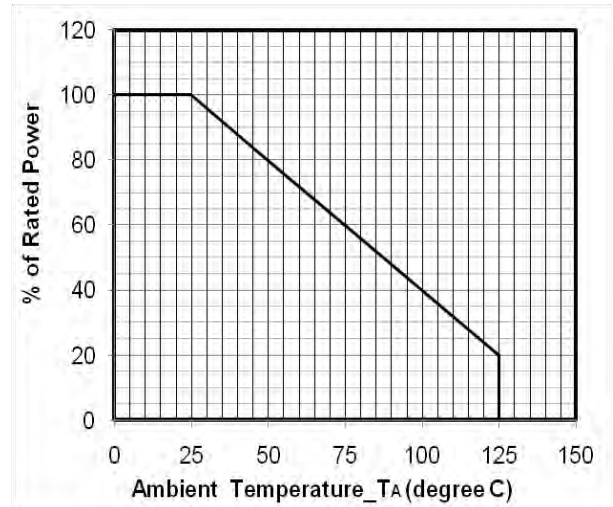
Junction Capacitance vs. Reverse Voltage



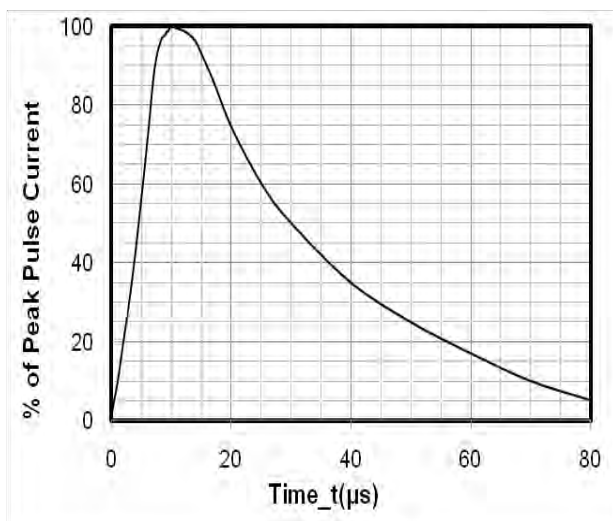
Peak Pulse Power vs. Pulse Time



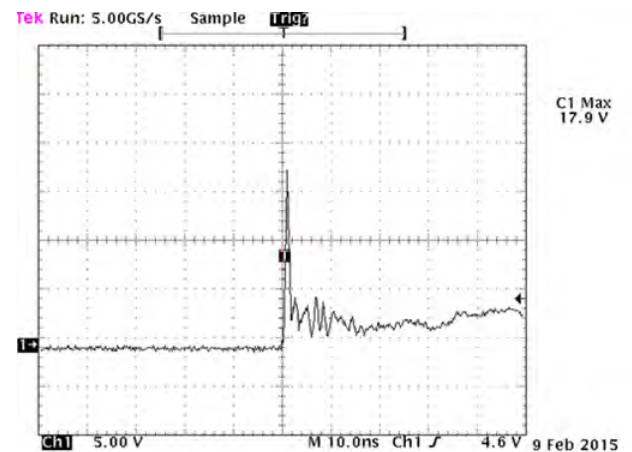
Clamping Voltage vs. Peak Pulse Current (t<sub>p</sub> = 8/20μs)



Power Derating Curve



8 X 20μs Pulse Waveform

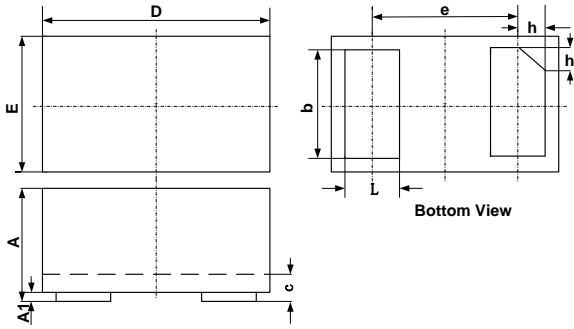


Note: Data is taken with a 10x attenuator

ESD Clamping Voltage

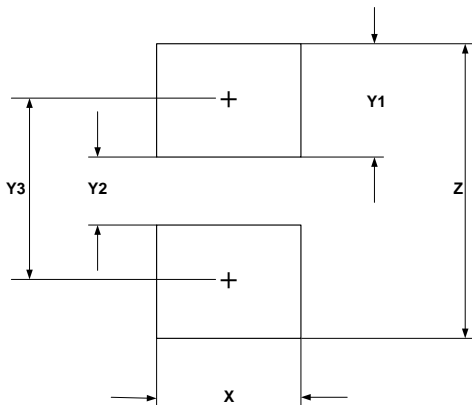
+8 kV Contact per IEC61000-4-2

DFN0603-2 Package Outline Drawing



| SYM | DIMENSIONS  |       |       |
|-----|-------------|-------|-------|
|     | MILLIMETERS |       |       |
|     | MIN         | NOM   | MAX   |
| A   | 0.230       |       | 0.330 |
| A1  | 0.000       | 0.020 | 0.050 |
| b   | 0.215       | 0.245 | 0.275 |
| c   | 0.120       | 0.150 | 0.180 |
| D   | 0.550       | 0.600 | 0.650 |
| e   | 0.355 BSC   |       |       |
| E   | 0.250       | 0.300 | 0.350 |
| L   | 0.160       | 0.190 | 0.220 |
| h   | 0.079 BSC   |       |       |

Suggested Land Pattern



| SYM | DIMENSIONS  |        |
|-----|-------------|--------|
|     | MILLIMETERS | INCHES |
| X   | 0.30        | 0.012  |
| Y1  | 0.25        | 0.010  |
| Y2  | 0.15        | 0.006  |
| Y3  | 0.40        | 0.016  |
| Z   | 0.65        | 0.026  |