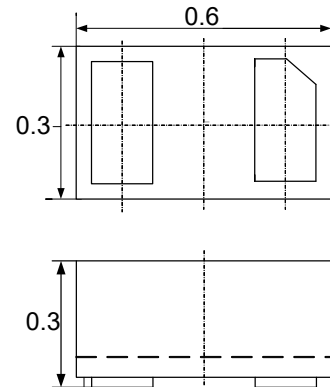


### Features

- Ultra low leakage: nA level
- Operating voltage: 5V
- Low Clamping Voltage
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    - Air discharge:  $\pm 15\text{kV}$
    - Contact discharge: 8kV
  - IEC61000-4-4 (EFT) 40A (5/50ns)
  - IEC61000-4-5 (Lightning) 5A (8/20 $\mu\text{s}$ )
- RoHS Compliant

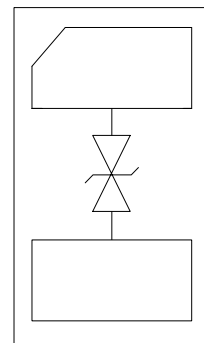
### Dimensions DFN0603



### Applications

- FireWire
- Display ports
- MDDI ports
- Digital Visual Interface (DVI)
- Cellular handsets & accessories
- Computer and peripherals

### Pin Configuration



### Mechanical Characteristics

- Package: DFN0603
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 10,000pcs
- Reel Size: 7 inch
- Device Marking: A5

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

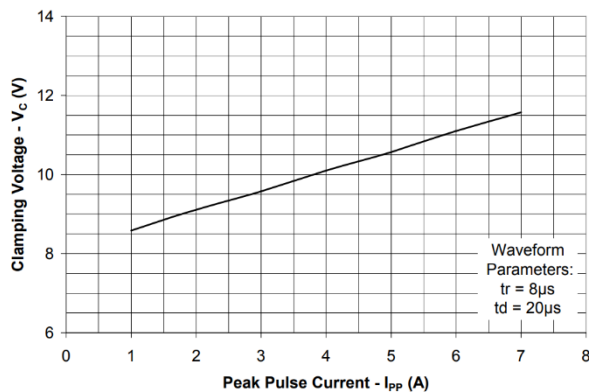
| Parameter                              | Symbol           | Value       | Unit |
|--|------------------|-------------|------|
| Peak Pulse Power (8/20 $\mu\text{s}$ ) | P <sub>pp</sub>  | 80          | W    |
| ESD per IEC 61000-4-2 (Air)            | V <sub>ESD</sub> | $\pm 15$    | Kv   |
| ESD per 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)

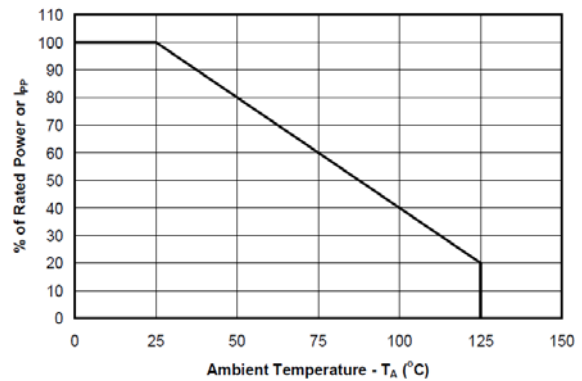
| Parameter               | Symbol    | Test Condition                       | Min | Typ | Max | Unit    |
|-------------------------|-----------|--------------------------------------|-----|-----|-----|---------|
| Reverse Working Voltage | $V_{RWM}$ |                                      |     |     | 5   | V       |
| Breakdown Voltage       | $V_{BR}$  | $I_T = 1mA$                          | 5.6 |     |     | V       |
| Reverse Leakage Current | $I_R$     | $V_{RWM} = 5V$                       |     |     | 1   | $\mu A$ |
| Clamping Voltage        | $V_C$     | $I_{PP} = 1A$ (8 x 20 $\mu s$ pulse) |     |     | 9.8 | V       |
| Clamping Voltage        | $V_C$     | $I_{PP} = 5A$ (8 x 20 $\mu s$ pulse) |     |     | 15  | V       |
| Junction Capacitance    | $C_J$     | $V_R = 0V, f = 1MHz$                 |     | 15  |     | pF      |

## Characteristic Curves

Clamping Voltage vs. Peak Pulse Current



Power Derating Curve



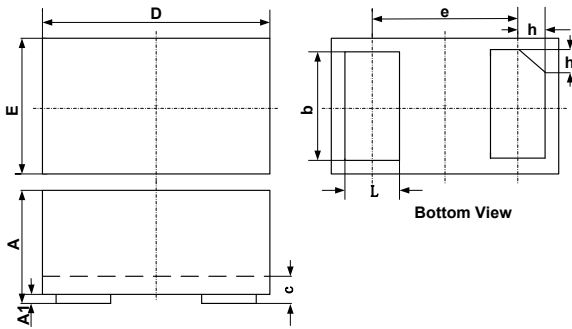
Pulse Waveform



$I_R(T_j) / I_R(T_j=25^\circ C)$

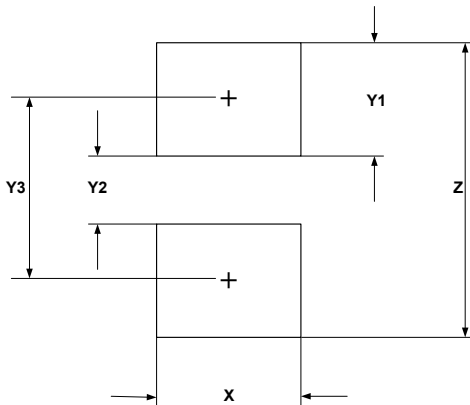


## DFN0603 Package Outline Drawing



| 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  |

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