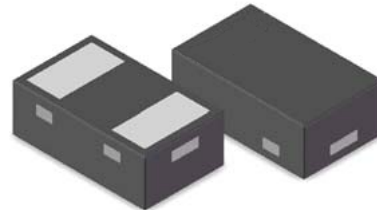


Features

- Ultra small package: 0.6X0.3X0.3mm
- Working voltage: 7V
- Low clamping voltage
- 2-pin leadless package
- RoHS compliant



DFN0603

IEC Compatibility (EN61000-4)

- IEC 61000-4-2 (ESD) $\pm 20\text{kV}$ contact $\pm 25\text{kV}$ air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 5A (8/20 μs)

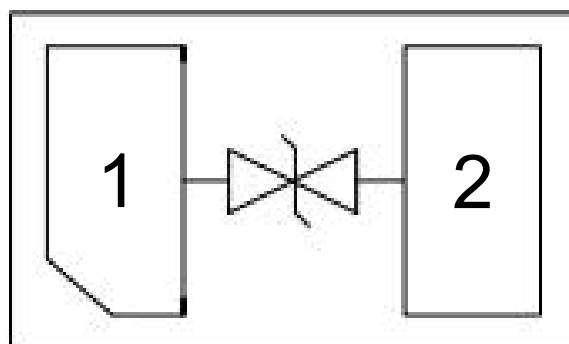
Applications

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

Mechanical Characteristics

- 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

Schematic & PIN Configuration



DFN0603

Absolute Maximum Ratings

| Parameter | Symbol | Value | Unit |
|--|-----------|-------------|-------------|
| Peak Pulse Power ($t_p = 8/20\mu s$ waveform) | P_{PP} | 80 | W |
| Peak Pulse Current (8/20 μs) | I_{PP} | 5 | A |
| ESD per IEC 61000-4-2 (Air) | V_{ESD} | ± 25 | kV |
| ESD per IEC 61000-4-2 (Contact) | | ± 20 | |
| Operating Temperature Range | T_J | -55 to +125 | $^{\circ}C$ |
| Storage Temperature Range | T_{STG} | -55 to +150 | $^{\circ}C$ |

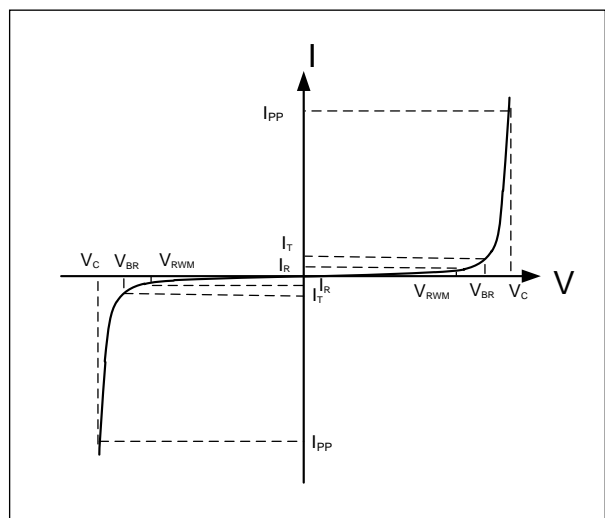
Electrical Characteristics

| Parameter | Symbol | Test Condition | Min | Typ | Max | Unit |
|-------------------------|-----------|--------------------------------------|-----|-----|-----|---------|
| Reverse Working Voltage | V_{RWM} | | | | 7 | V |
| Breakdown Voltage | V_{BR} | $I_T = 1mA$ | 7.5 | | | V |
| Reverse Leakage Current | I_R | $V_{RWM} = 7V$ | | | 0.2 | μA |
| Clamping Voltage | V_C | $I_{PP} = 1A$ (8 x 20 μs pulse) | | | 9 | V |
| Clamping Voltage | V_C | $I_{PP} = 5A$ (8 x 20 μs pulse) | | | 16 | V |
| Junction Capacitance | C_J | $V_R = 0V, f = 1MHz$ | | 15 | | pF |

Electrical Parameters (TA = 25 $^{\circ}C$ unless otherwise noted)

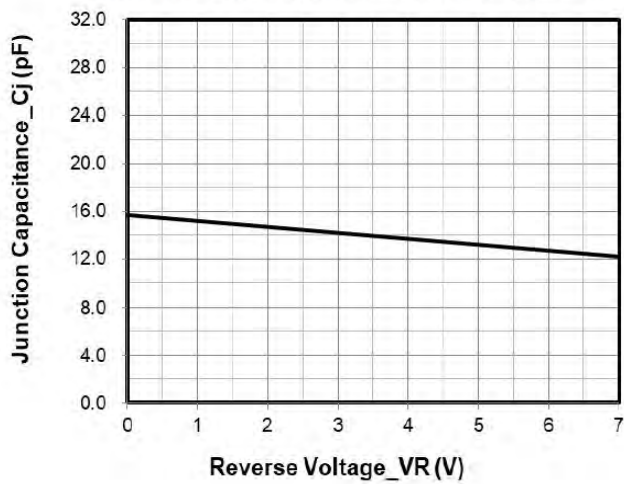
| Symbol | Parameter |
|-----------|---|
| I_{PP} | Maximum Reverse Peak Pulse Current |
| V_C | Clamping Voltage @ I_{PP} |
| V_{RWM} | Working Peak Reverse Voltage |
| I_R | Maximum Reverse Leakage Current @ V_{RWM} |
| V_{BR} | Breakdown Voltage @ I_T |
| I_T | Test Current |

Note.: 8/20 μs pulse waveform.

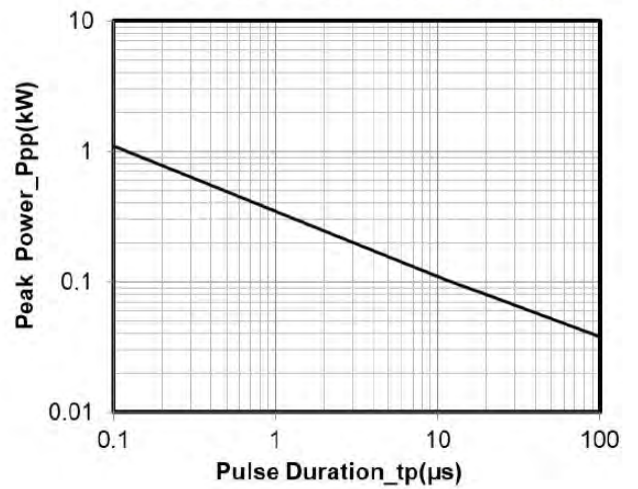


Typical Performance Characteristics

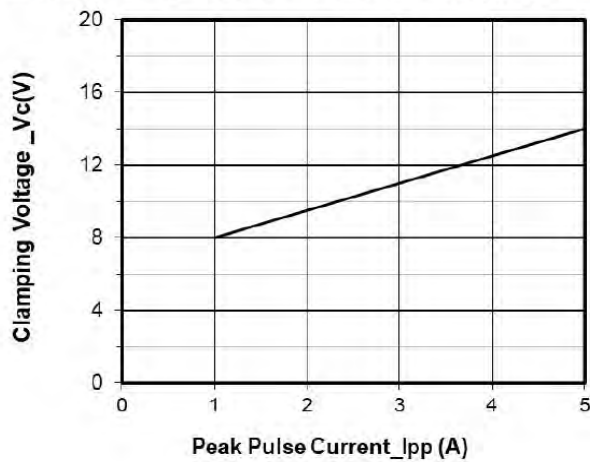
Junction Capacitance vs. Reverse Voltage



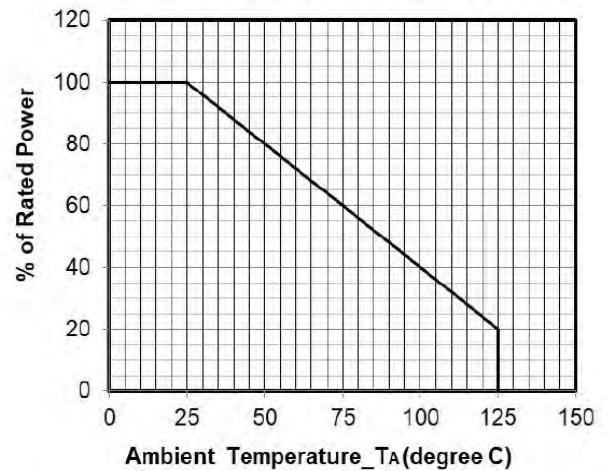
Peak Pulse Power vs. Pulse Time



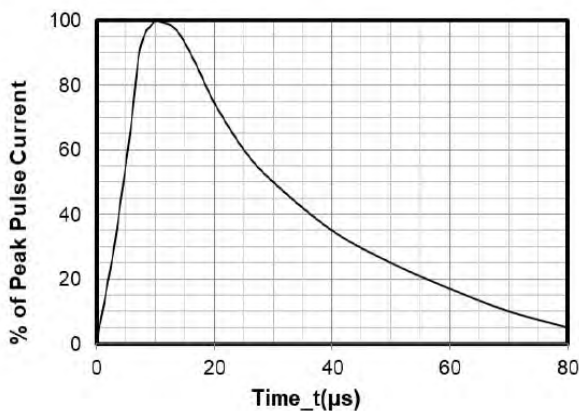
Clamping Voltage vs. Peak Pulse Current (tp = 8/20μs)



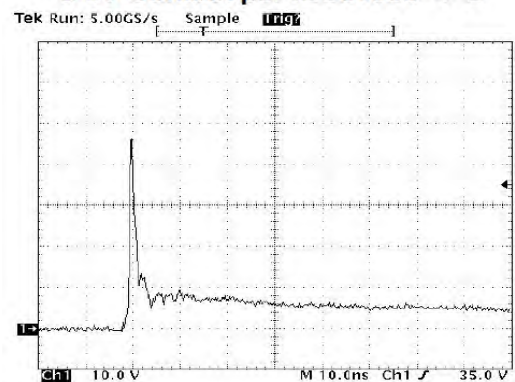
Power Derating Curve



8 X 20μs Pulse Waveform



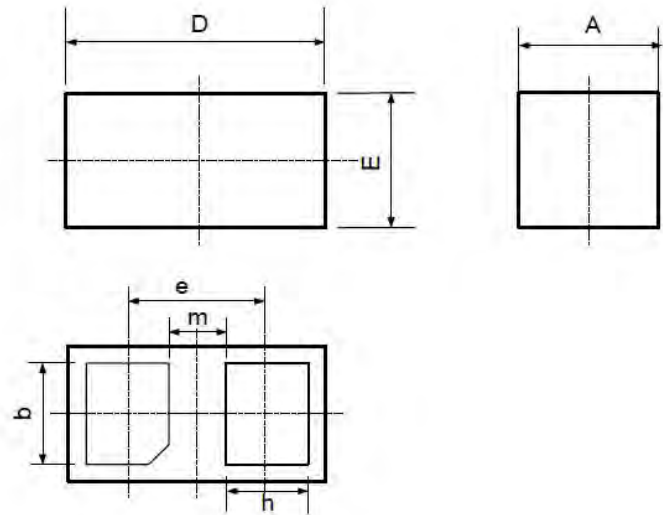
**ESD Clamping Voltage
8 kV Contact per IEC61000-4-2**



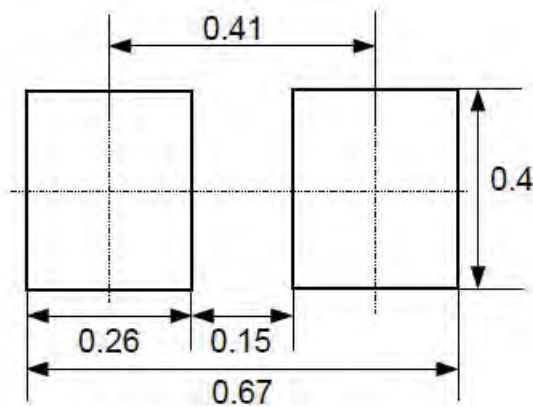
Note: Data is taken with a 10x attenuator

Package Mechanical Data

| SYM | DIMENSIONS | |
|-----|-------------|-------|
| | MILLIMETERS | |
| | MIN | MAX |
| A | 0.230 | 0.330 |
| D | 0.550 | 0.650 |
| E | 0.250 | 0.350 |
| b | 0.200 | 0.300 |
| e | 0.350 | |
| m | 0.165 | |
| h | 0.070 | 0.170 |



Suggested Land Pattern



Ordering Information

| Order code | Package | Base qty | Delivery mode |
|---------------|---------|----------|---------------|
| PTN062G15S7B8 | DFN0603 | 15K | Tape and reel |