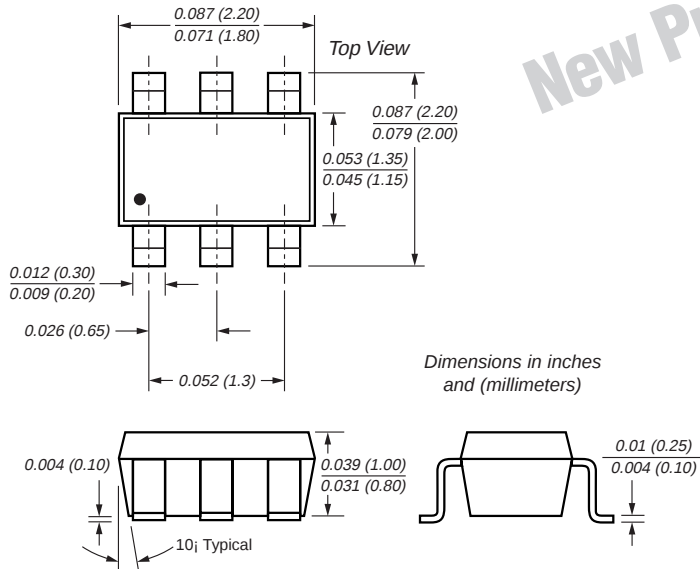



**SOT-363**


## Mechanical Data

**Case:** SOT-363 package

**Molding Compound Flammability Rating:** UL 94V-0

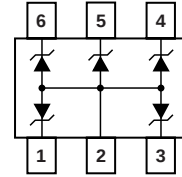
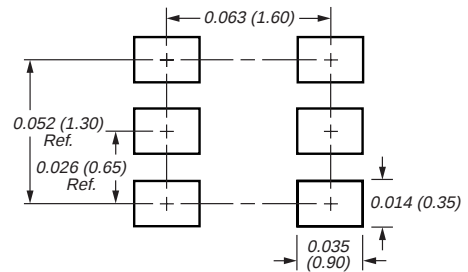
**Terminals:** High temperature soldering guaranteed:  
250°C/10 sec. at terminals

**Marking Code:** GF5

**Packaging Codes - Options:**

G1 - 10K per 13" reel, 30K/box

G2 - 3K per 7" reel, 30K/box

**Pin Configuration (Top View)**

**Mounting Pad Layout**


## Features

- Transient protection for data lines as per  
**IEC 1000-4-2 (ESD) 15kV (air), 8kV (contact)**  
**IEC 1000-4-4 (EFT) 40A (tp = 5/50ns)**  
**IEC 1000-4-5 (Lightning) 12A (tp = 8/20µs)**
- Small package for use in portable electronics
- Bidirectional protection of 4 I/O lines
- Unidirectional protection of 5 I/O lines
- Low leakage current • Low operating and clamping voltages
- Ideal for cellular handsets, cordless phones, notebooks and handhelds, and digital cameras

## Maximum Ratings and Thermal Characteristics (T<sub>A</sub> = 25°C unless otherwise noted)

| Parameter                          | Symbol           | Value       | Unit |
|------------------------------------|------------------|-------------|------|
| Peak Pulse Power 8/20µs waveform   | P <sub>ppm</sub> | 200         | W    |
| Peak Pulse Current 8/20µs waveform | I <sub>PP</sub>  | 12          | A    |
| Operating Temperature              | T <sub>J</sub>   | -55 to +125 | °C   |
| Storage Temperature                | T <sub>STG</sub> | -55 to +150 | °C   |

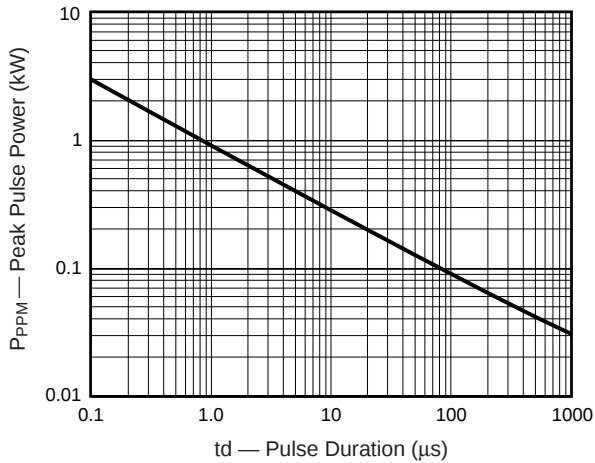
## Electrical Characteristics (T<sub>A</sub> = 25°C unless otherwise noted)

| Parameter                                                                                              | Symbol           | Minimum | Typical | Maximum     | Unit |
|--------------------------------------------------------------------------------------------------------|------------------|---------|---------|-------------|------|
| Reverse Stand-Off Voltage                                                                              | V <sub>RWM</sub> | —       | —       | 5           | V    |
| Reverse Breakdown Voltage at I <sub>T</sub> = 1mA                                                      | V <sub>BR</sub>  | 6       | —       | —           | V    |
| Reverse Leakage Current at V <sub>RWM</sub> = 5V                                                       | I <sub>R</sub>   | —       | —       | 10          | µA   |
| Clamping Voltage at I <sub>PP</sub> = 1A, 8/20µs waveform<br>at I <sub>PP</sub> = 12A, 8/20µs waveform | V <sub>C</sub>   | —       | —       | 9.5<br>12.5 | V    |
| Peak Forward Voltage at I <sub>F</sub> = 1A, 8/20µs waveform                                           | V <sub>F</sub>   | —       | 1.5     | —           | V    |
| Junction Capacitance between I/O pins and Gnd<br>V <sub>R</sub> = 0V, f = 1MHz                         | C <sub>j</sub>   | —       | —       | 150         | pF   |

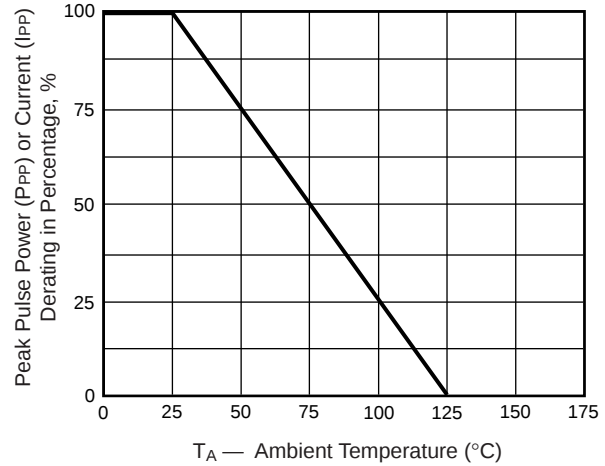
**TVS Diode Array**  
For ESD & Latch-Up Protection

**Ratings and  
Characteristic Curves** ( $T_A=25^\circ\text{C}$  unless otherwise noted.)

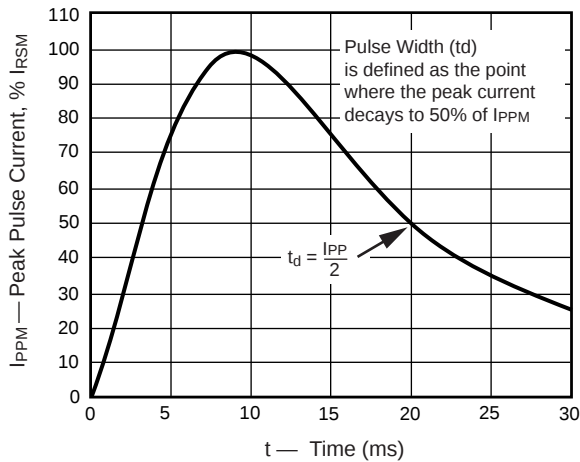
**Fig. 1 – Non-Repetitive Peak Pulse Power  
vs. Pulse Time**



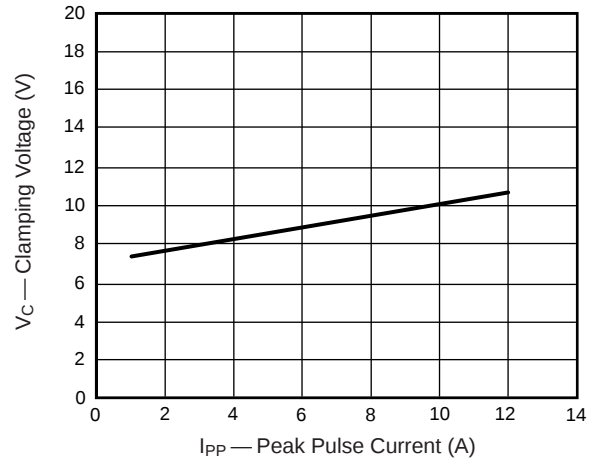
**Fig. 2 – Pulse Derating Curve**



**Fig. 3 – Pulse Waveform**



**Fig. 4 – Clamping Voltage  
vs. Peak Pulse Current**



**Fig. 5 – Typical Junction Capacitance**

