

Features

- Working voltage: 5V
- Low clamping voltage
- Protects five I/O lines
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: $\pm 30\text{kV}$
Contact discharge: $\pm 30\text{kV}$
 - IEC61000-4-5 (Lightning) 11A (8/20 μs)
 - IEC61000-4-4 (EFT) 40A (5/50ns)
- RoHS Compliant

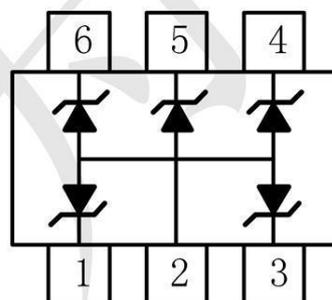
Mechanical Characteristics

- Package: SOT-363 (2.0X2.1X0.35mm)
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020
- Shipping Qty : 3000pcs/7Inch Tape & Reel

Applications

- Portable Instrumentation
- Microprocessor Based Equipmenmt
- Cell Phone Handsets and Accessories
- Personal Digital Assistants (PDAs) and Pagers

Dimensions and Pin Configuration



Pin Configuration

Marking : 6J5 0r 6J5

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

| Parameter | Symbol | Value | Unit |
|---------------------------------|------------------|-------------|------|
| Peak Pulse Power (8/20μs) | Ppk | 180 | W |
| Peak Pulse Current (8/20μs) | I _{PP} | 11 | A |
| ESD per IEC 61000-4-2 (Air) | V _{ESD} | ±30 | kV |
| ESD per IEC 61000-4-2 (Contact) | | ±30 | |
| Operating Temperature Range | T _J | -55 to +125 | °C |
| Storage Temperature Range | T _{stg} | -55 to +150 | °C |

Electrical Characteristics (T_A=25°C unless otherwise specified)

| Parameter | Symbol | Min | Typ | Max | Unit | Test Condition |
|-------------------------|------------------|-----|------|-----|------|-------------------------------------|
| Reverse Working Voltage | V _{RWM} | | | 5 | V | |
| Breakdown Voltage | V _{BR} | 6 | | | V | I _T = 1mA |
| Reverse Leakage Current | I _R | | | 0.1 | μA | V _{RWM} = 5V |
| Forward Voltage | V _F | | 0.85 | 1.2 | V | I _F = 15mA |
| Clamping Voltage | V _C | | | 10 | V | I _{PP} = 1A(8x20us pulse) |
| Clamping Voltage | V _C | | 12 | | V | I _{PP} = 10A(8x20us pulse) |
| Junction Capacitance | C _J | | 80 | | pF | V _R = 0V, f = 1MHz |

Note 1: I/O pins are Pin 1, 3, 4, 5 and 6

Fig1. 8/20 μ s Pulse Waveform

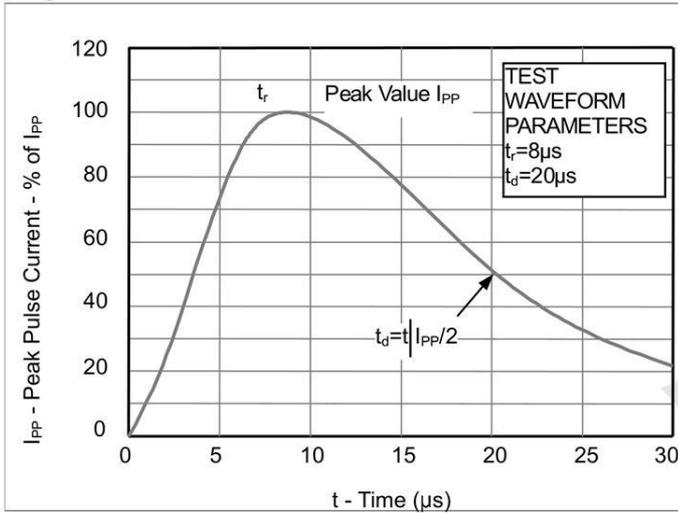


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

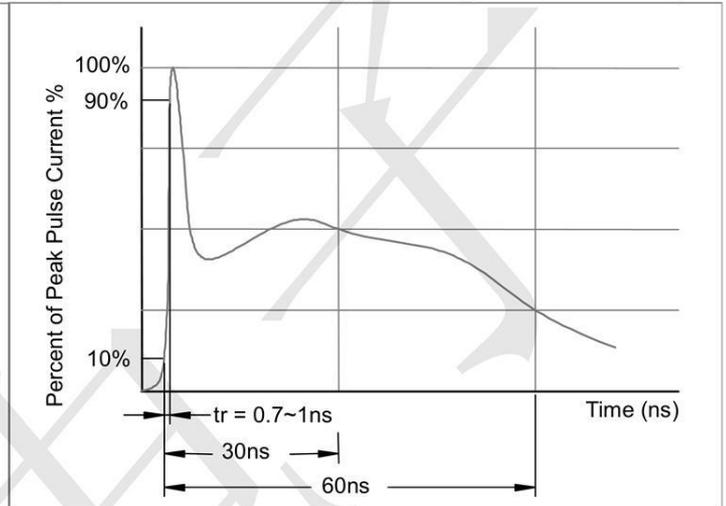
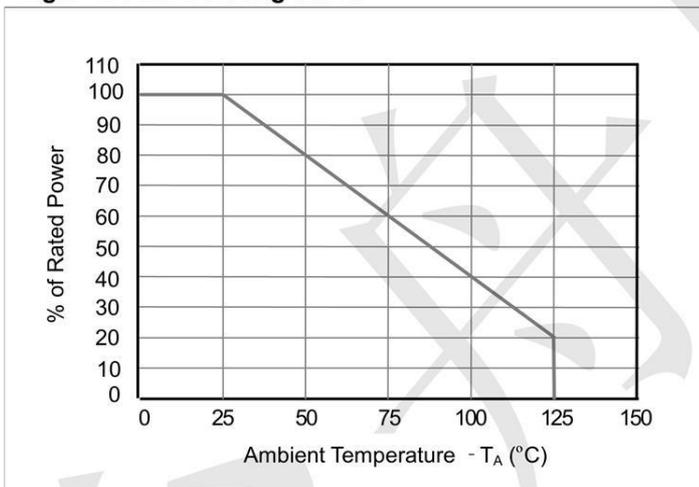
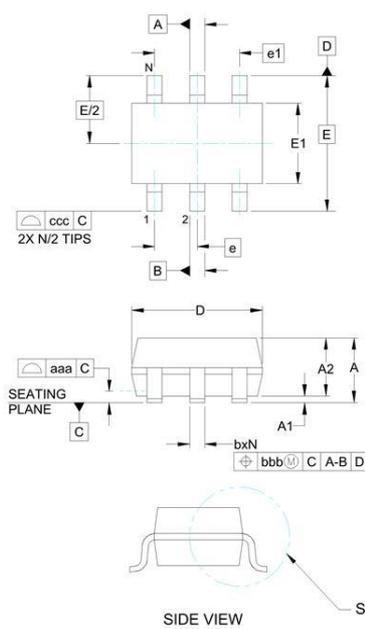


Fig3. Power Derating Curve

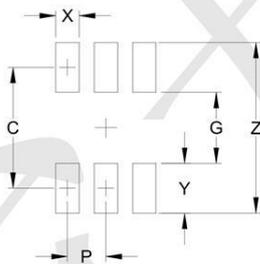


Outline Drawing - SOT-363(2.0X2.1)



| DIM | INCHES | | | MILLIMETERS | | |
|-----|----------|------|------|-------------|------|------|
| | MIN | NOM | MAX | MIN | NOM | MAX |
| A | - | - | .043 | - | - | 1.10 |
| A1 | .000 | - | .004 | 0.00 | - | 0.10 |
| A2 | .028 | .035 | .039 | 0.70 | 0.90 | 1.00 |
| b | .006 | - | .012 | 0.15 | - | 0.30 |
| c | .003 | - | .009 | 0.08 | - | 0.22 |
| D | .071 | .079 | .087 | 1.80 | 2.00 | 2.20 |
| E1 | .045 | .049 | .053 | 1.15 | 1.25 | 1.35 |
| E | .083 BSC | | | 2.10 BSC | | |
| e | .026 BSC | | | 0.65 BSC | | |
| e1 | .051 | | | 1.30 BSC | | |
| L | .010 | .014 | .018 | 0.26 | 0.36 | 0.46 |
| L1 | (.017) | | | (0.42) | | |
| N | 6 | | | 6 | | |
| 01 | 0° | - | 8° | 0° | - | 8° |
| aaa | .004 | | | 0.10 | | |
| bbb | .004 | | | 0.10 | | |
| ccc | .012 | | | 0.30 | | |

Land Pattern - SOT-363



| DIM | DIMENSIONS | |
|-----|------------|-------------|
| | INCHES | MILLIMETERS |
| C | (.073) | (1.85) |
| G | .039 | 1.00 |
| P | .026 | 0.65 |
| X | .016 | 0.40 |
| Y | .033 | 0.85 |
| Z | .106 | 2.70 |