

Features

- ◆ Ultra low capacitance: 0.6pF typical I/O to GND
- ◆ Ultra low leakage: nA level
- ◆ Low operating voltage: 5.5V
- ◆ Bi-directional TVS Diode Array
- ◆ Low clamping voltage
- ◆ Transient Protection for 4 I/O Lines
- ◆ Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: $\pm 20\text{kV}$
Contact discharge: $\pm 15\text{kV}$
 - IEC 61000-4-5 Surge 2.8 A (8/20 μs)
 - IEC61000-4-4 (EFT) 40A (5/50ns)
- ◆ ROHS Compliant

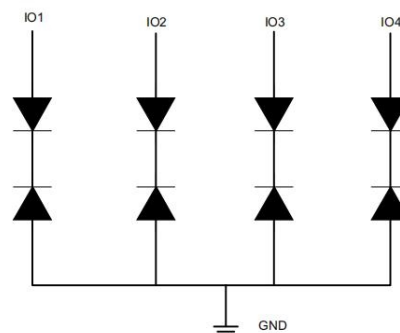
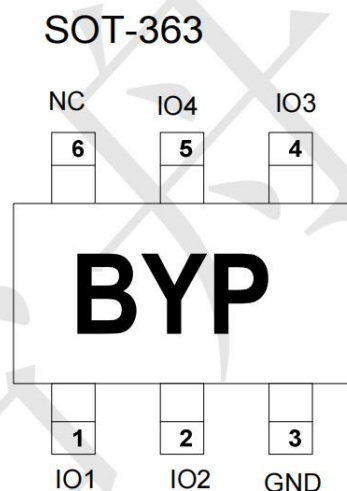
Mechanical Characteristics

- ◆ Package: SOT363
- ◆ 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

- ◆ Glucose Meter
- ◆ Tablets
- ◆ GPS
- ◆ Portable Media Players

Dimensions and Pin Configuration



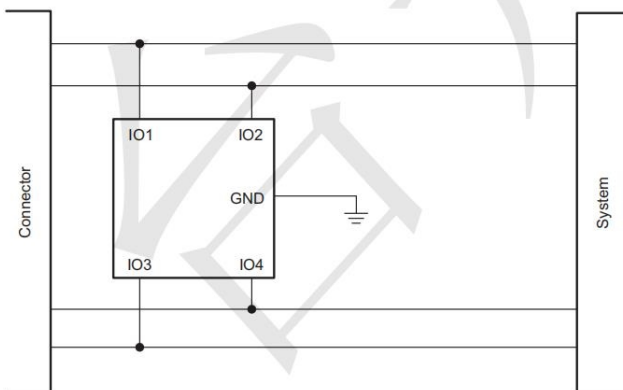
Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

| Parameter | Symbol | Value | Unit |
|--------------------------------|------------------|-------------|------|
| Peak Pulse Power (8/20μs) | Ppk | 50 | W |
| ESD per IEC61000-4-2 (Air) | V _{ESD} | ±20 | kV |
| ESD per IEC61000-4-2 (Contact) | | ±15 | |
| Operating Temperature Range | T _J | -55 to +125 | °C |
| Storage Temperature Range | T _{stg} | -55 to +150 | °C |

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

| Parameter | Symbol | Min | Typ | Max | Unit | Test Condition |
|--------------------------------------|-------------------|------|------|-----|------|--|
| Reverse Working Voltage | V _{RWM} | -5.5 | | 5.5 | V | |
| Breakdown Voltage | V _{BR} | 6.8 | | 9.5 | V | I _T =1mA |
| Leakage Current | I _{Leak} | | 0.9 | | nA | V _{IO} =2.5V |
| Dynamic resistance | R _{DYN} | | | 0.9 | Ω | any I/O pin to GND |
| Clamping Voltage (I/O-GND) | V _C | | | 9 | V | I _{PP} =1A, T _p =8/20 μs |
| Clamping Voltage(Vcc-GND) | V _C | | 14.5 | | V | I _{PP} =2.8A, T _p =8/20 μs |
| Junction Capacitance (I/O to GND) | C _J | | 0.6 | 0.9 | pF | V _R =0V, f=1MHz, |

Simplified Schematic



Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)

Fig1. 8/20 μs Pulse Waveform

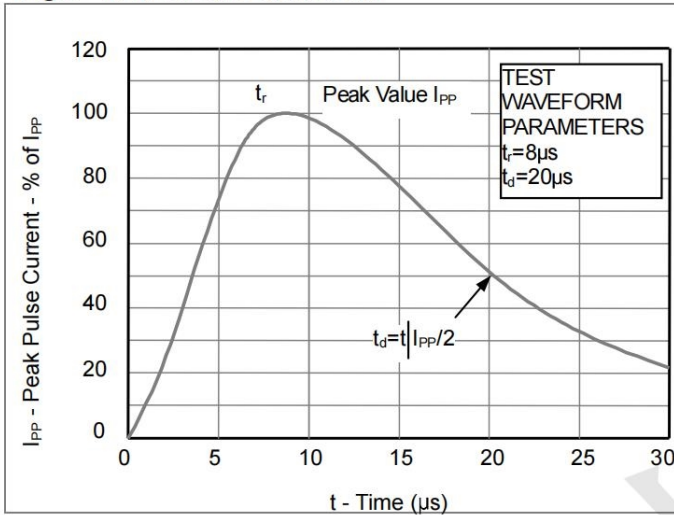


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

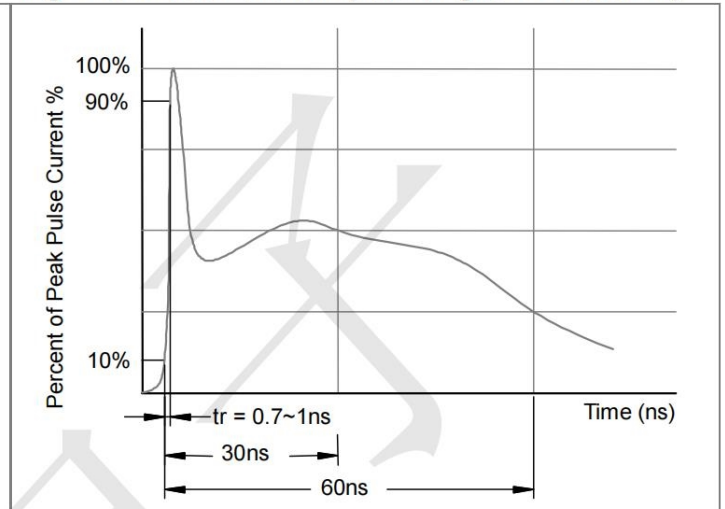
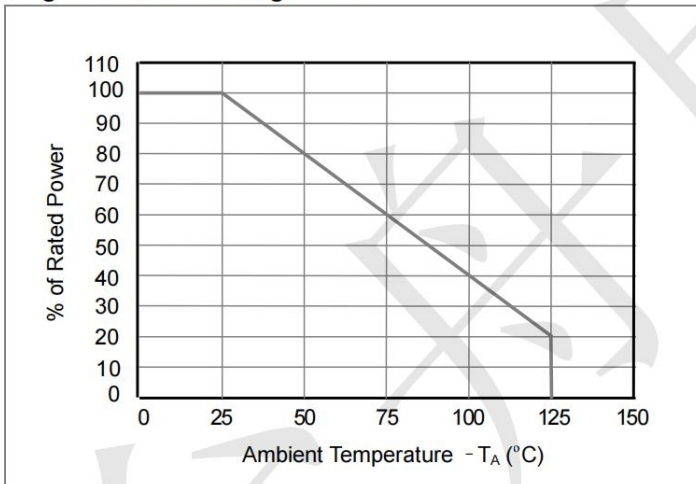
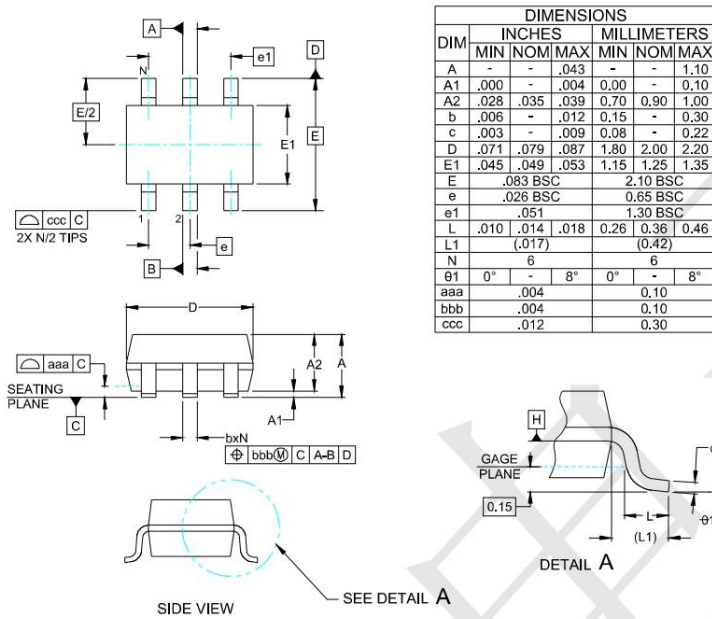


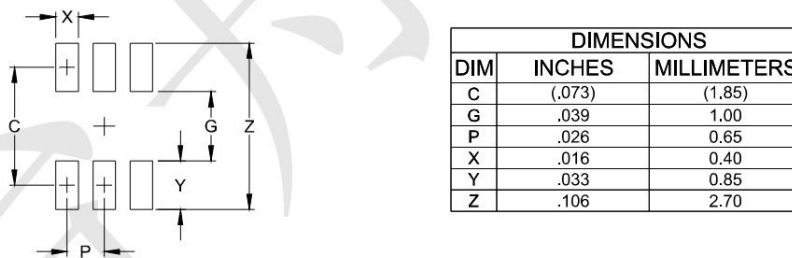
Fig3. Power Derating Curve



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



Land Pattern - SOT-363



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