

## 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 $\mu\text{s}$ )
  - IEC61000-4-4 (EFT) 40A (5/50ns)
- ◆ ROHS Compliant

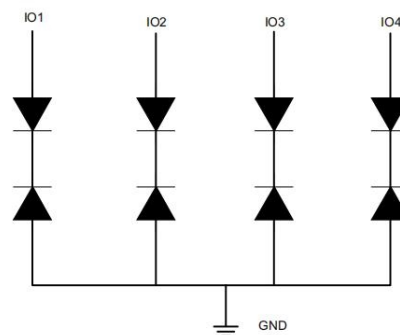
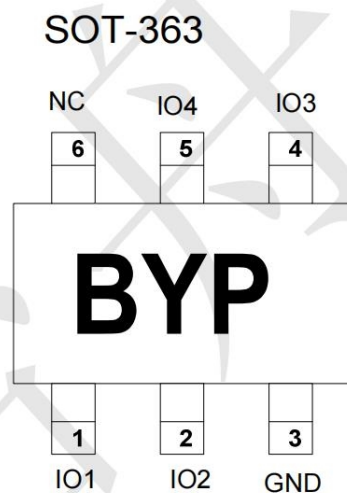
## Mechanical Characteristics

- ◆ 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



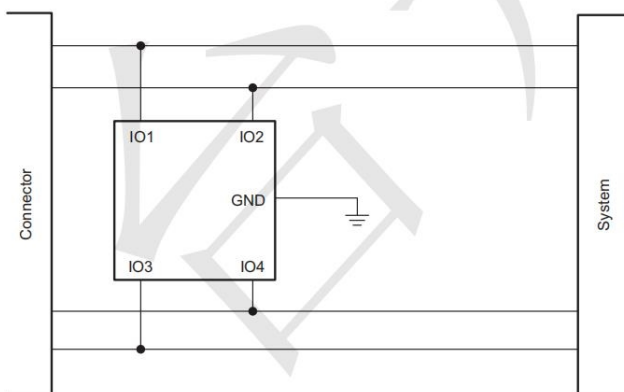
**Absolute Maximum Ratings** (Tamb=25°C unless otherwise specified)

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

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

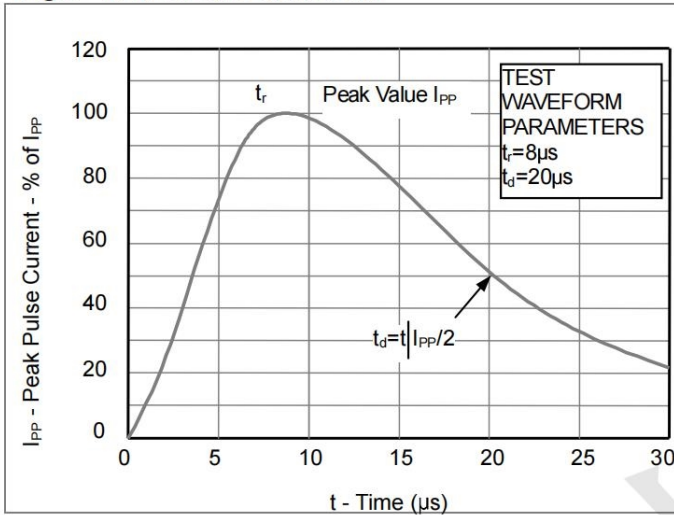
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V <sub>RWM</sub>	-5.5		5.5	V	
Breakdown Voltage	V <sub>BR</sub>	6.8		9.5	V	I <sub>T</sub> =1mA
Leakage Current	I <sub>Leak</sub>		0.9		nA	V <sub>IO</sub> =2.5V
Dynamic resistance	R <sub>DYN</sub>			0.9	Ω	any I/O pin to GND
Clamping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

**Simplified Schematic**

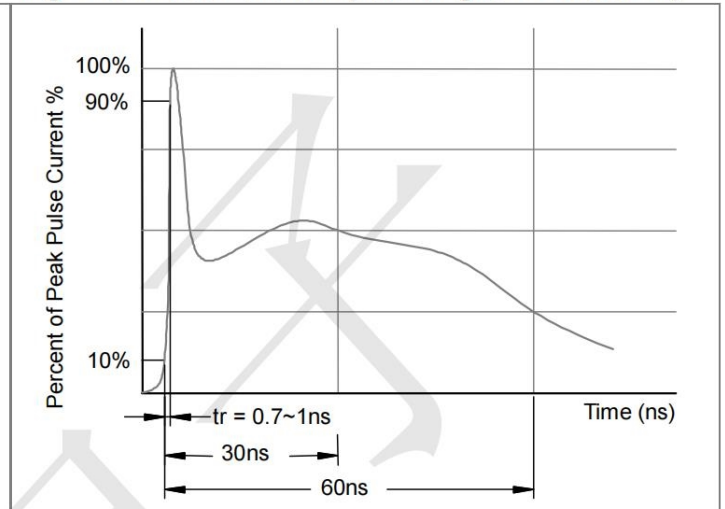


**Typical Performance Characteristics ( $T_A=25^\circ\text{C}$  unless otherwise Specified)**

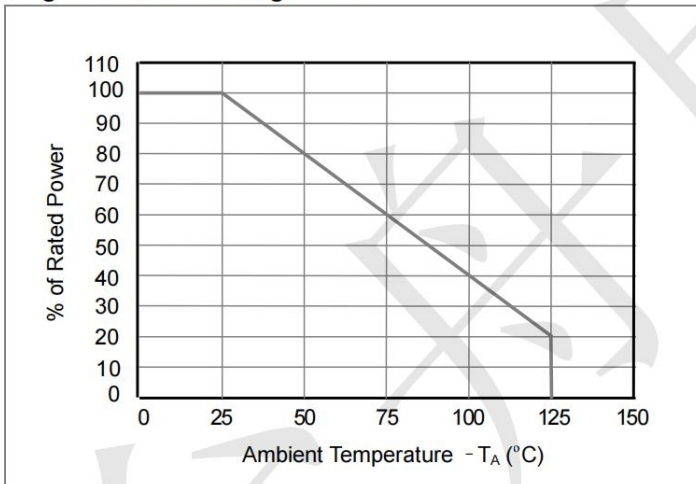
**Fig1. 8/20 $\mu\text{s}$  Pulse Waveform**



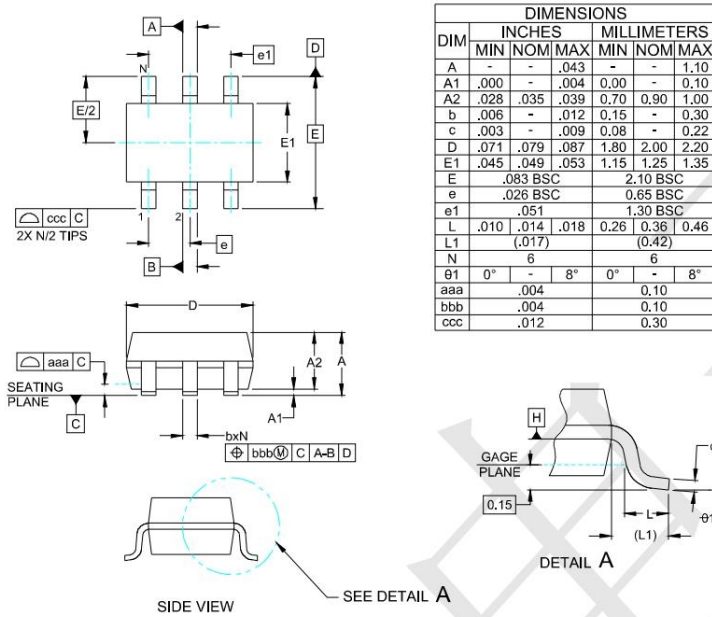
**Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)**



**Fig3. Power Derating Curve**



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



**Land Pattern - SOT-363**

