

Features

- Ultra low leakage: nA level
- Low operating voltage: 5V
- 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) 8A (8/20 μs)
- RoHS Compliant
- Lead Finish: NiPdAu

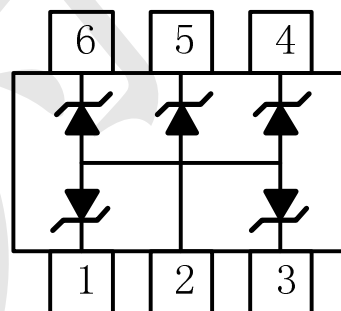
Mechanical Characteristics

- Package: SOT563 (1.6mmx1.6mmx0.6mm)
- Lead Finish: Matte Tin
- UL Flammability Classification Rating 94V-0
- Pb-Free, Halogen Free, RoHS/WEEE Compliant
- Shipping Qty :4000pcs/7Inch Tape & Reel

Applications

- USB 2.0 interface
- 10/100 Ethernet
- Personal digital assistants (PDA's)
- Notebooks, Desktops and Servers
- Portable instrumentation
- Digital cameras

Dimensions and Pin Configuration



Pin Configuration

Marking: 5X

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	150	W
ESD per IEC 61000-4-2 (Air)	VESD	±30	kV
ESD per IEC 61000-4-2 (Contact)		±30	
Operating Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	Tstg	-55 to +150	°C

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

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM			5	V	
Breakdown Voltage	VBR	6.5			V	IT = 1mA
Reverse Leakage Current	IR			0.1	uA	VRWM = 5V
Forward Voltage	VF			1.2	V	IF = 10mA
Clamping Voltage	VC			14	V	I _{PP} 8 A=(8 x 20us pulse)
Junction Capacitance	CJ		60		pF	VR = 0V, f = 1MHz IO to Gnd
Junction Capacitance	CJ			30	pF	VR = 0V, f = 1MHz IO to IO

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

Fig1. 8/20 μs Pulse Waveform

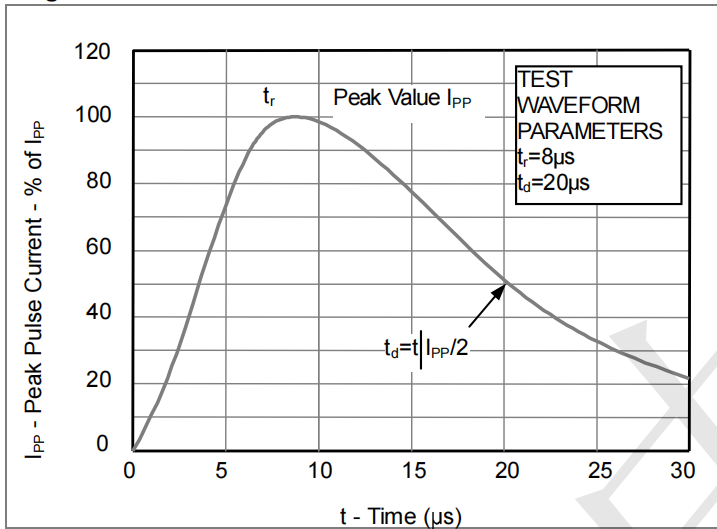


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

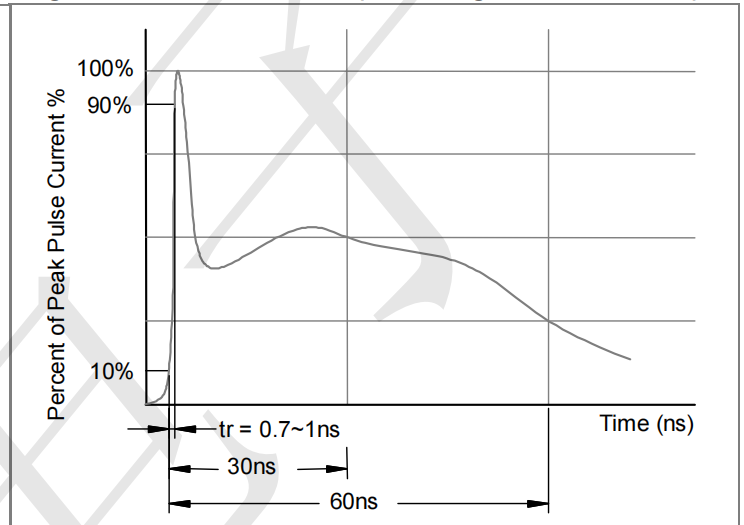
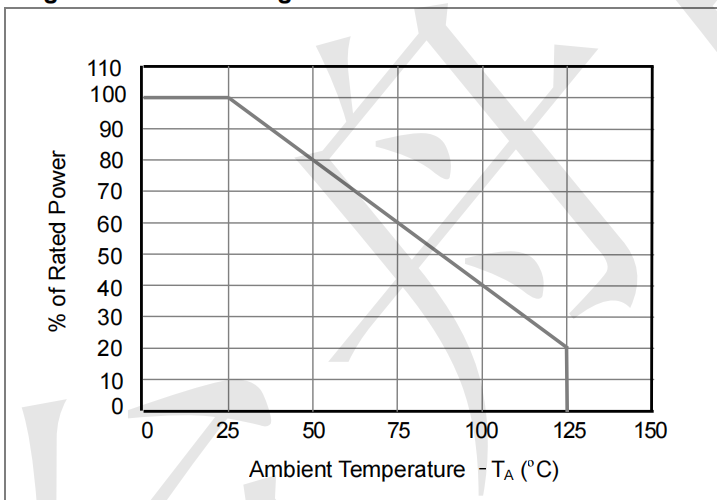
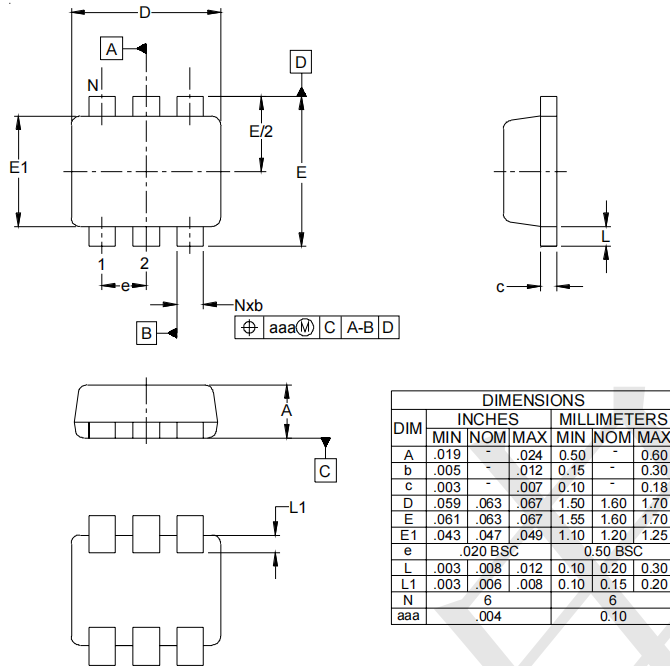


Fig3. Power Derating Curve



Outline Drawing - SOT-563



Land Pattern - SOT-563

