

## Features

- Ultra low capacitance: 0.3pF typical (IO to IO)
- Ultra low leakage: nA level
- Low operating voltage: 5V
- Complies with following standards:
  - – IEC 61000-4-2 (ESD) immunity test
    - Air discharge:  $\pm 20$ kV
    - Contact discharge:  $\pm 15$ kV
  - – IEC 61000-4-5 (Lightning) 4A (8/20 $\mu$ s)
- RoHS Compliant
- Lead Finish: NiPdAu

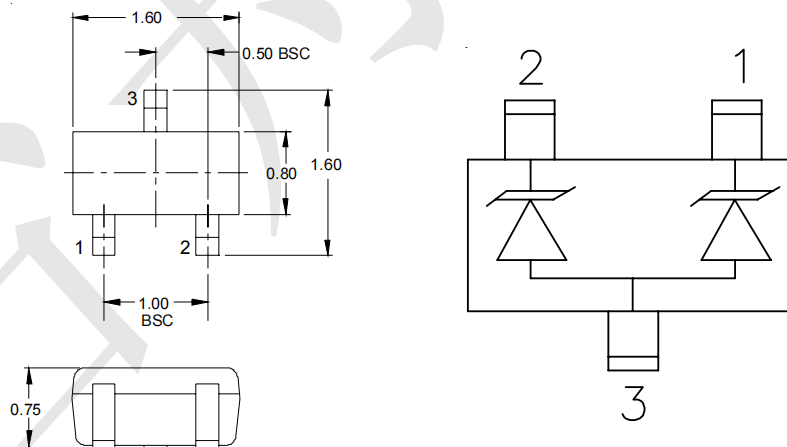
## Mechanical Characteristics

- Package: SOT-323
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound.
- Moisture Sensitivity: Level 3 per J-STD-020
- Terminal Connections: See Diagram Below
- Shipping Qty : 3000pcs/7Inch Tape & Reel

## Applications

- Laptop Computers
- Cellular Phones
- Digital Cameras
- Personal Digital Assistants (PDAs)

## Dimensions and Pin Configuration



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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	68	W
Peak Pulse Current (8/20μs)	Ipp	4	A
ESD per IEC 61000-4-2 (Air)	VESD	±20	kV
ESD per IEC 61000-4-2 (Contact)		±15	
Operating Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	Tstg	-55 to +150	°C

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

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM			5	V	
Breakdown Voltage	VBR	5.8	6.8	9	V	IT = 1mA
Reverse Leakage Current	IR			0.2	μA	VRWM = 5V
Clamping Voltage	VC			9	V	I <sub>PP</sub> = 1A (8 x 20μs pulse)
Clamping Voltage	VC			15	V	I <sub>PP</sub> = 4A (8 x 20us pulse)
Junction Capacitance	CJ		0.5	0.6	pF	Vr=0V ,f=1MH Pin1 or 2 to Pin3
			0.35		pF	Vr=0V ,f=1MH Pin1 to Pin2

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

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

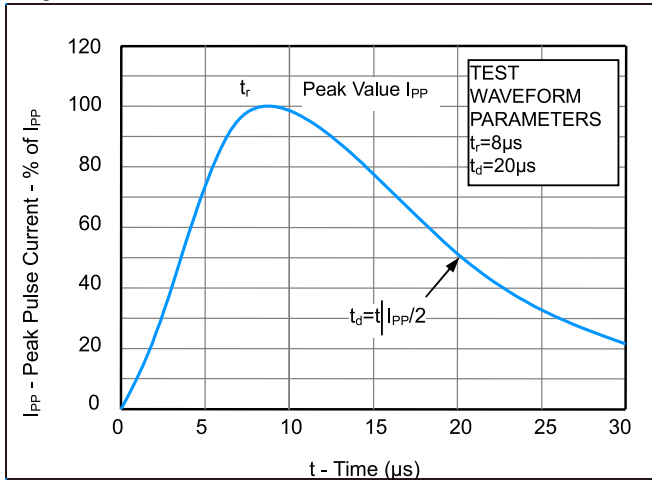


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

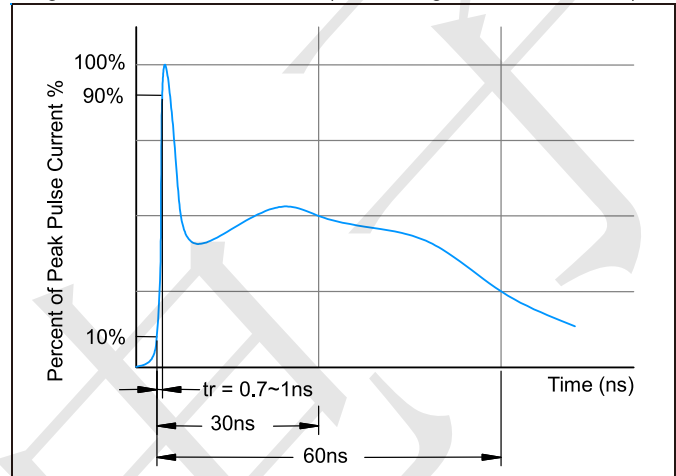
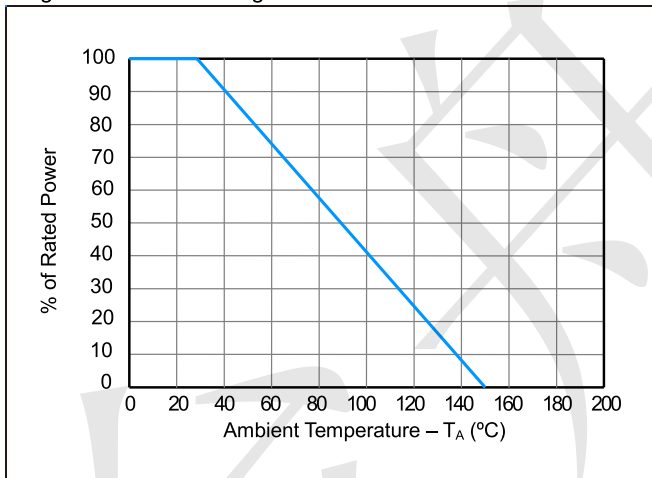
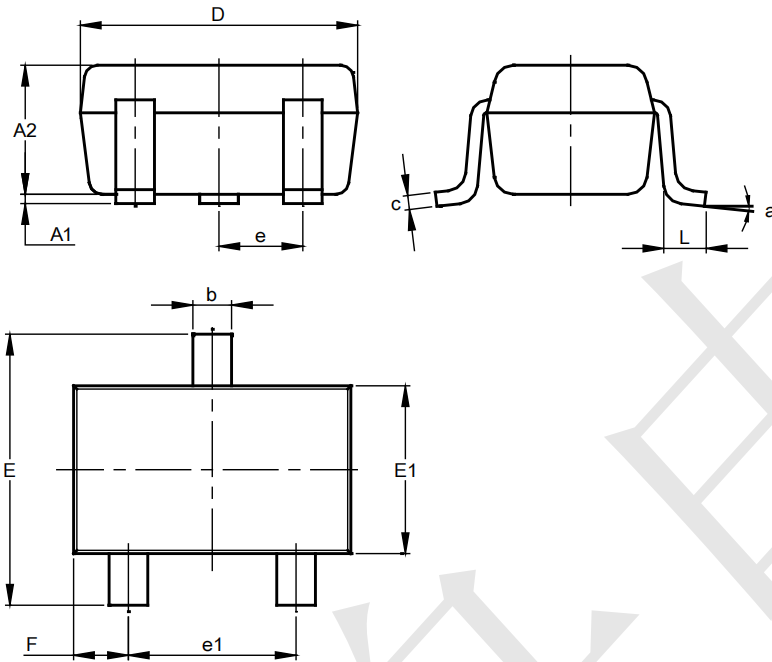


Fig3. Power Derating Curve

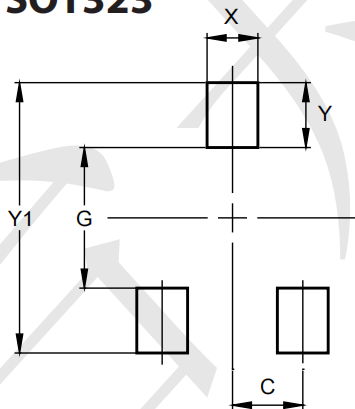


**Outline Drawing - SOT323(SC70-3)**



SOT323			
Dim	Min	Max	Typ
A1	0.00	0.10	0.05
A2	0.90	1.00	0.95
b	0.25	0.40	0.30
c	0.10	0.18	0.11
D	1.80	2.20	2.15
E	2.00	2.20	2.10
E1	1.15	1.35	1.30
e	0.650 BSC		
e1	1.20	1.40	1.30
F	0.375	0.475	0.425
L	0.25	0.40	0.30
a	0°	8°	--
All Dimensions in mm			

**Land Pattern - SOT323**



Dimensions	Value (in mm)
C	0.650
G	1.300
X	0.470
Y	0.600
Y1	2.500