

Features

- Low operating voltage: 3.3V
- Ultra low capacitance: 0.25 pF typical (IO to IO)
- Ultra low leakage: nA level
- Low clamping voltage
- Complies with following standards:
- - IEC 61000-4-2 (ESD) immunity test
Air discharge: $\pm 30\text{kV}$
Contact discharge: $\pm 25\text{kV}$
– IEC61000-4-5 (Lightning) 3A (8/20 μs)
- These are Pb-Free Devices
- Response Time is Typically $< 1\text{ ns}$

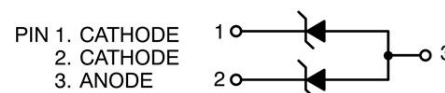
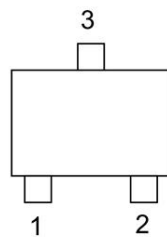
Mechanical Characteristics

- Package: SOT723
- Lead Finish: Matte Tin
- Case Material: “Green” Molding Compound.
- Moisture Sensitivity: Level 3 per J-STD-020
- Terminal Connections: See Diagram Below
- Shipping Qty : 8000pcs/7Inch Tape & Reel

Applications

- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebooks and Handhelds
- Portable Instrumentation
- Digital Cameras
- Peripherals

Dimensions and Pin Configuration



Marking:5S

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

Parameter	Symbol	Value	Unit
Peak Pulse Current (8/20μs)	I _{pp}	3	A
ESD per IEC 61000-4-2 (Air)	V _{ESD}	±30	kV
ESD per IEC 61000-4-2 (Contact)		±25	
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}			3.3	V	
Breakdown Voltage	V _{BR}	3.6			V	I _T = 1mA
Reverse Leakage Current	I _R			0.07	uA	V _{RWM} = 3.3V
Clamping Voltage	V _C			12	V	I _{pp} =1A(8x 20us pulse)
Clamping Voltage	V _C			20	V	I _{pp} =3A(8x 20us pulse)
Junction Capacitance	C _J		0.35		pF	V _R = 0V, f = 1MHz IO to GND
Junction Capacitance	C _J		0.25		pF	V _R = 0V, f = 1MHz IO to IO

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

Fig1. 8/20 μs Pulse Waveform

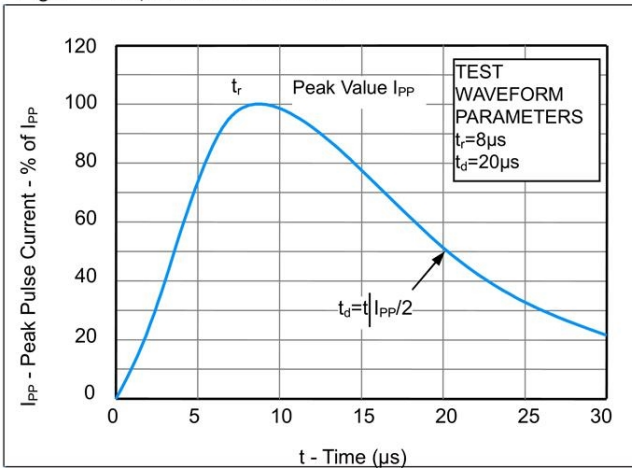


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

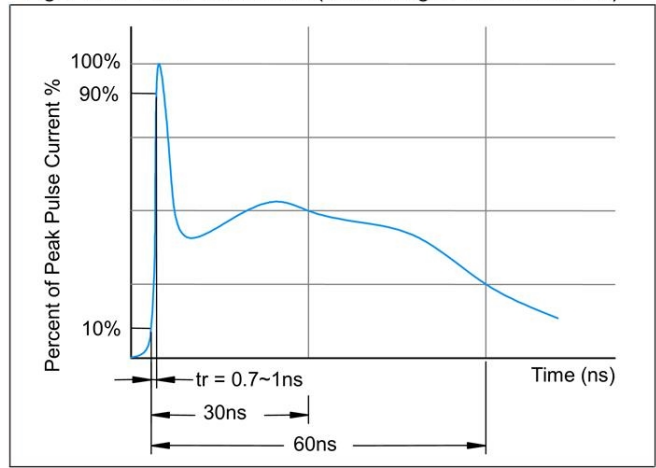
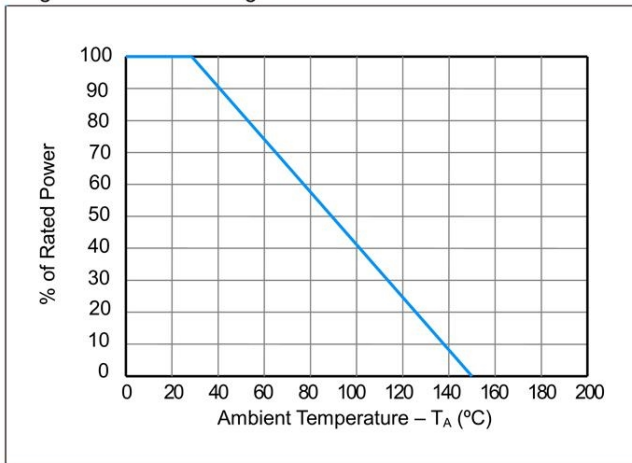
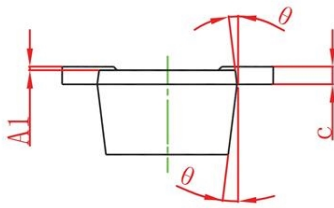
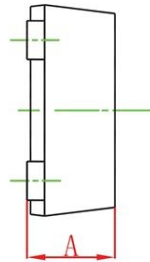
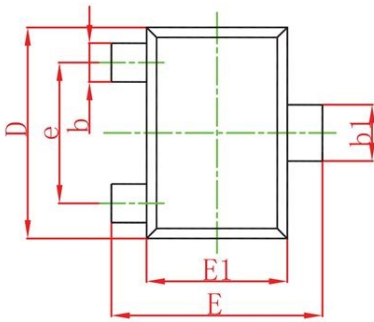


Fig3. Power Derating Curve



SOT-723 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.430	0.500	0.017	0.020
A1	0.000	0.050	0.000	0.002
b	0.170	0.270	0.007	0.011
b1	0.270	0.370	0.011	0.015
c	0.080	0.150	0.003	0.006
D	1.150	1.250	0.045	0.049
E	1.150	1.250	0.045	0.049
E1	0.750	0.850	0.030	0.033
e	0.800TYP.		0.031TYP.	
θ	7° REF.		7° REF.	