

Features

- ◆ Ultra low leakage: nA level
- ◆ Low operating voltage: 6V
- ◆ Low clamping voltage
- ◆ Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: $\pm 15\text{kV}$
Contact discharge: $\pm 8\text{kV}$
 - IEC61000-4-5 (Lightning)2A (8/20 μs)
 - IEC61000-4-4 (EFT) 40A (5/50ns)
- ◆ ROHS Compliant

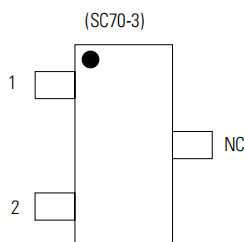
Mechanical Characteristics

- ◆ Package: SOT323(SC70-3)
- ◆ 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/7InchTape & Reel

Applications

- ◆ Computer Peripherals
- ◆ Mobile Phones
- ◆ Digital Cameras
- ◆ Desktops/Notebooks
- ◆ LCD/PDPTVs
- ◆ SetTop Boxes

Dimensions and Pin Configuration



Absolute Maximum Ratings (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
ESD per IEC61000-4-2 (Air) ESD per IEC61000-4-2 (Contact)	V _{ESD}	±15 ±8	kV
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

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

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V _{RWM}			6.0	V	
Breakdown Voltage	V _{BR}	6.0			V	I _T =1mA
Leakage Current	I _{Leak}			100	nA	V _{RWM} =6V
Clamping Voltage	V _C		9.2	13	V	I _{PP} =1A, T _p =8/20μs
Clamping Voltage	V _C		11.2	16	V	I _{PP} =2A, T _p =8/20μs
Junction Capacitance (I/O to GND)	C _J			7	pF	V _R =0V, f=1MHz,
Junction Capacitance (I/O to I/O)	C _J			5	pF	V _R =0V, f=1MHz,

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

Fig1. 8/20 μs Pulse Waveform

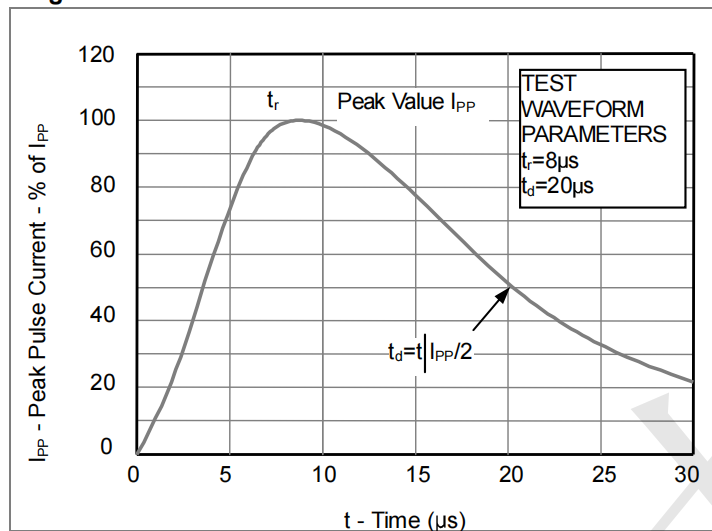


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

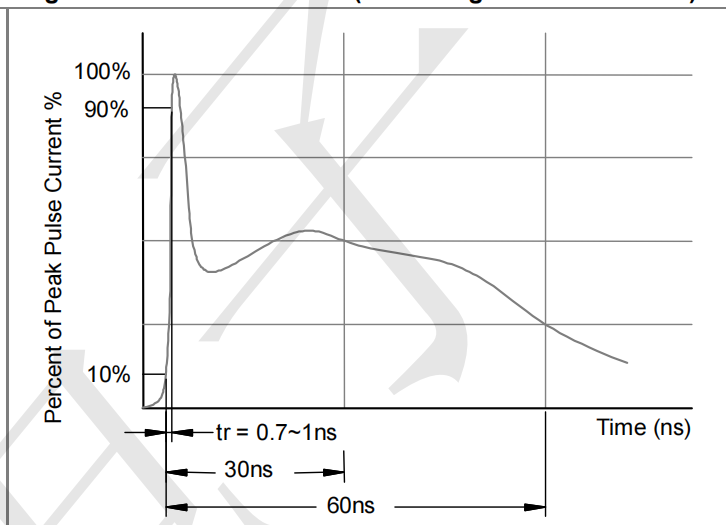
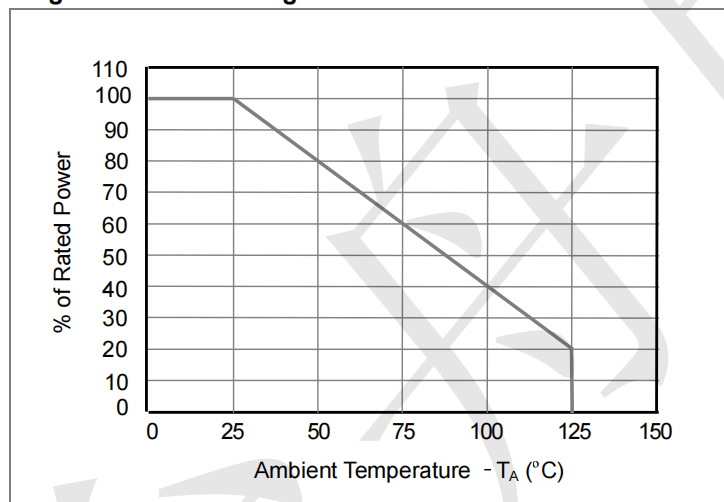
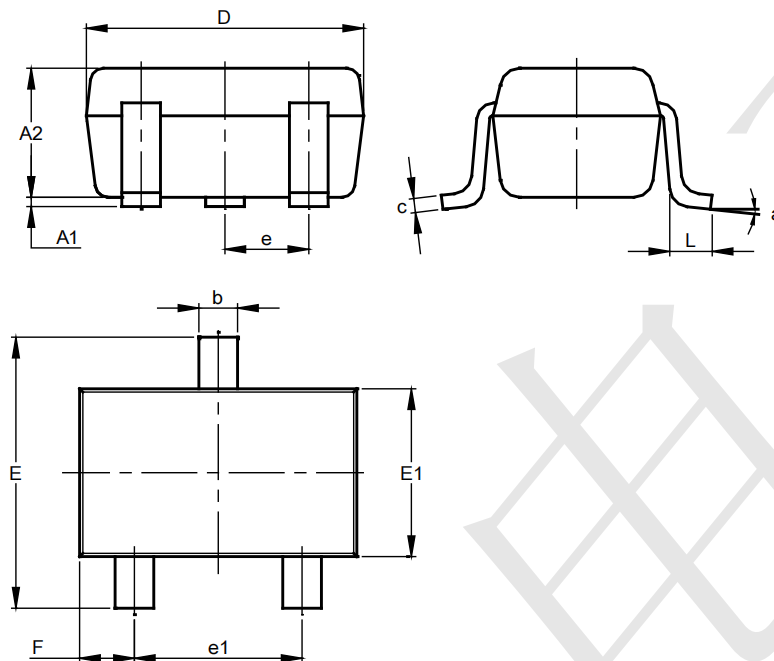


Fig3. Power Derating Curve

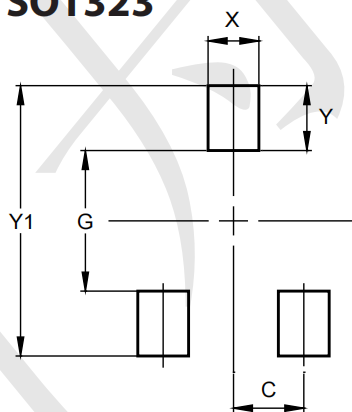


Outline Drawing - SOT323(SC70-3)



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