

Features

- * 300W peak pulse power (8/20 μ s)
- * Low operating :5V
- * Ultra low capacitance: 1.0 pF typical
- * Ultra low leakage: nA level
- * Low clamping voltage
- * Protects one power line or data line
- * Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: \pm 30kV
 - Contact discharge: \pm 30kV
 - IEC61000-4-5 (Lightning) 18A (8/20 μ s)
 - IEC61000-4-4 (EFT) 40A (5/50ns)
- * RoHS Compliant

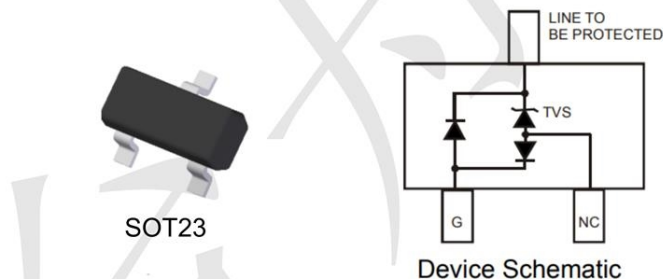
Mechanical Characteristics

- * Package: SOT23
- * Lead Finish: Matte Tin
- * Case Material: “Green” Molding Compound.
- * UL Flammability Classification Rating 94V-0
- * Moisture Sensitivity: Level 3 per J-STD-020
- * Terminal Connections: See Diagram Below
- * Shipping Qty :3000pcs/7Inch Tape & Reel

Applications

- * USB Ports
- * Smart Phones
- * Wireless Systems
- * Ethernet 10/100/1000 Base T

Dimensions and Pin Configuration



Marking:A05

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	300	W
Peak Pulse Current (8/20μs)	I _{PP}	18	A
ESD per IEC 61000-4-2 (Air)	V _{ESD}	±30	kV
ESD per IEC 61000-4-2 (Contact)		±30	
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	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V _{RWM}				5.0	V
Breakdown Voltage	V _{BR}	I _T = 1mA	6			V
Reverse Leakage Current	I _R	V _{RWM} = 5V			0.2	μA
Clamping Voltage	V _C	I _{PP} = 1A (8 x 20μs pulse)			9	V
Clamping Voltage	V _C	I _{PP} = 18A (8 x 20us pulse)		16		V
Junction Capacitance	C _J	V _R = 0V, f = 1MHz		1		pF

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

Fig1. 8/20 μs Pulse Waveform

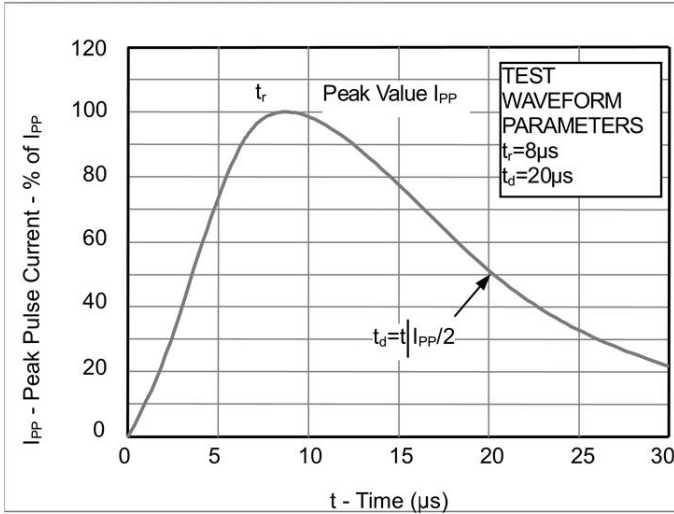


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

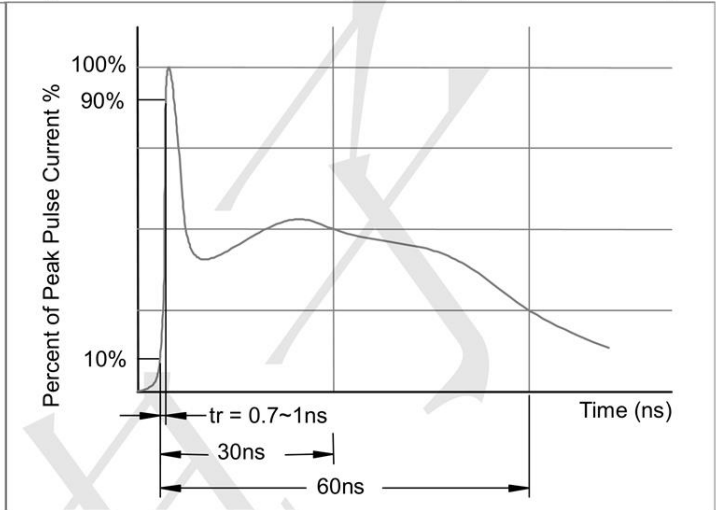
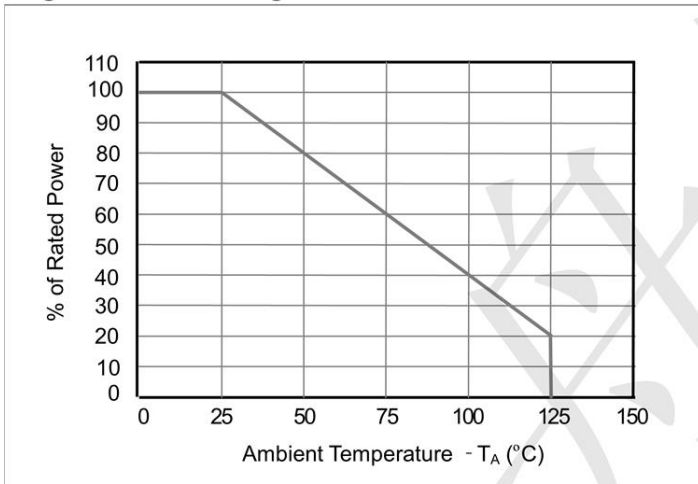
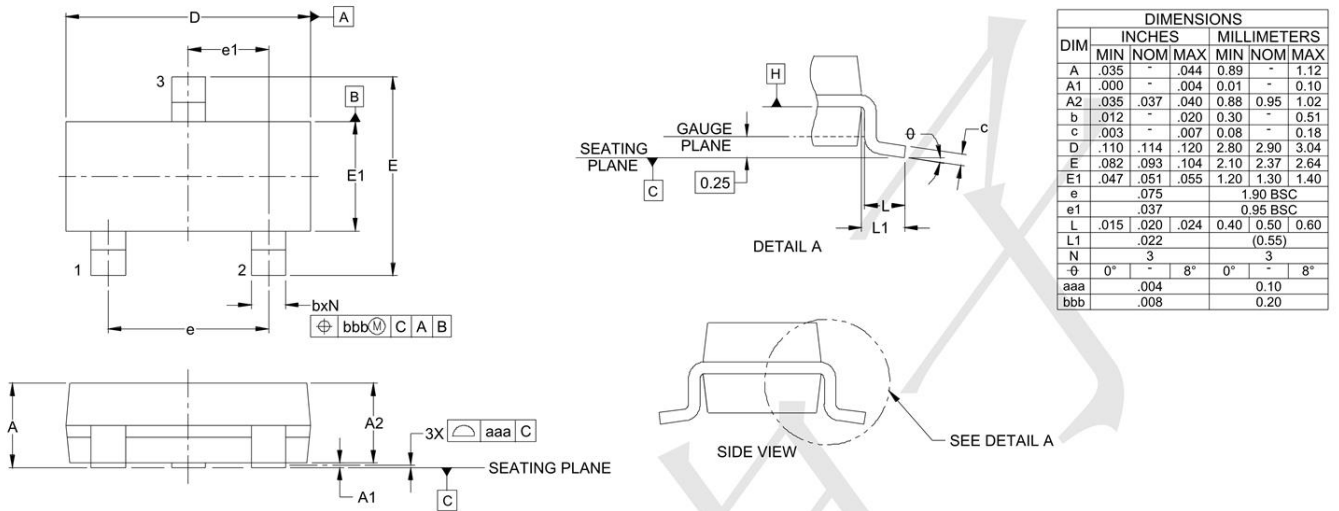


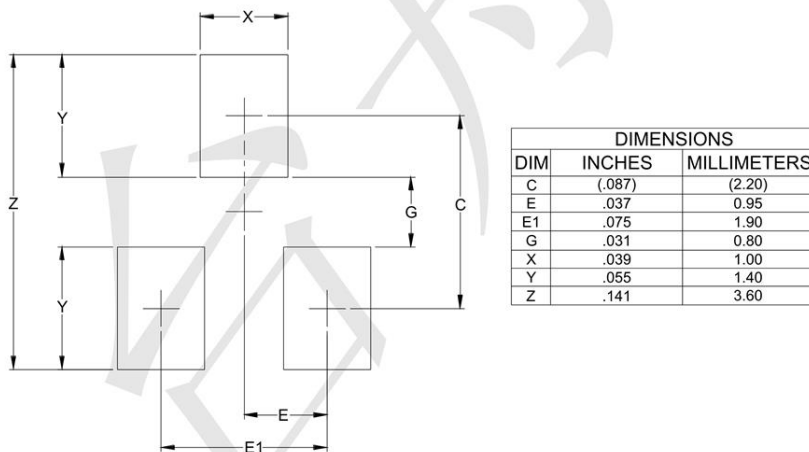
Fig3. Power Derating Curve



Outline Drawing - SOT23



Land Pattern - SOT23



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