

## Features

- 80W peak pulse power(8/20  $\mu$ s)
- Ultra low leakage: nA level
- Operating voltage: 12V
- Low clamping voltage
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test  
Air discharge:  $\pm 30$ kV  
Contact discharge:  $\pm 30$ kV
  - IEC61000-4-4 (EFT) 40A (5/50ns)
  - IEC61000-4-5 (Lightning) 8A (8/20 $\mu$ s)
- RoHS Compliant

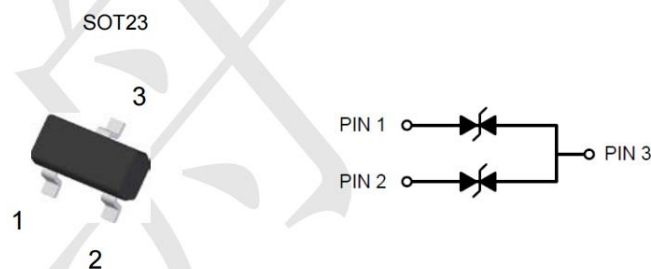
## Mechanical Characteristics

- Package: SOT23
- Lead Finish: Matte Tin
- UL Flammability Classification Rating 94V-0
- Shipping Qty :3000pcs/7Inch Tape & Reel

## Applications

- Cellular Handsets and Accessories
- Notebooks and Handhelds
- Portable Instrumentation
- Set Top Box

## Dimensions and Pin Configuration



**Marking: 12C**

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	80	W
Peak Pulse Current (8/20μs)	Ipp	8	A
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** (TA=25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM			12	V	
Breakdown Voltage	VBR	13.6		17.5	V	IT = 1mA
Reverse Leakage Current	IR			0.05	uA	VRWM = 12V
Clamping Voltage	VC			9	V	I <sub>PP</sub> = 1A (8 x 20μs pulse)
Clamping Voltage	VC			10	V	I <sub>PP</sub> = 8A (8 x 20Us pulse)
Junction Capacitance	CJ		15	20	pF	VR=0, f=1MHz, Pin 3 to Pin 1 or Pin 3 to Pin 2
Junction Capacitance	CJ		8		pF	VR=0, f=1MHz, Pin1 to Pin 2 or Pin 2 to Pin1

## Characteristic Curves

Fig1. 8/20 $\mu$ s Pulse Waveform

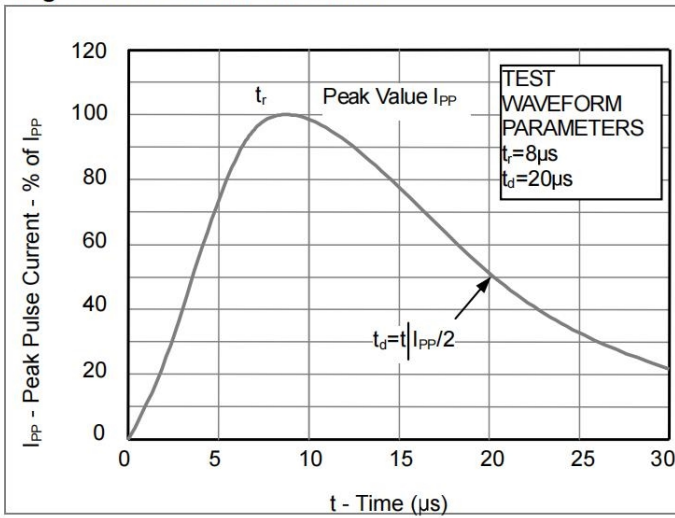


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

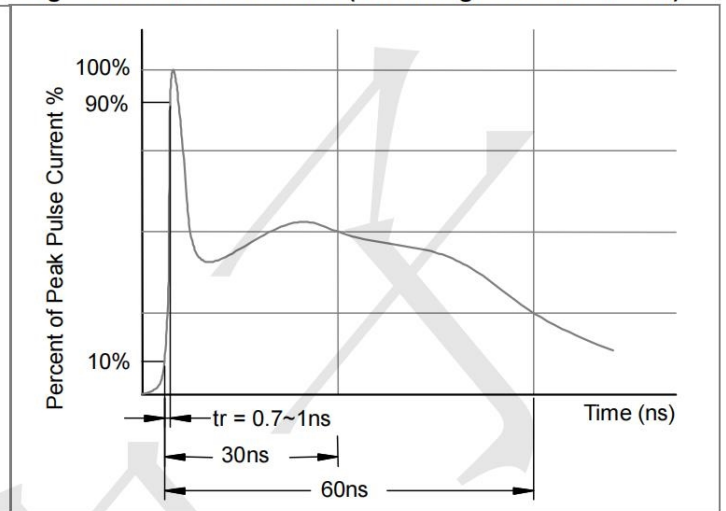
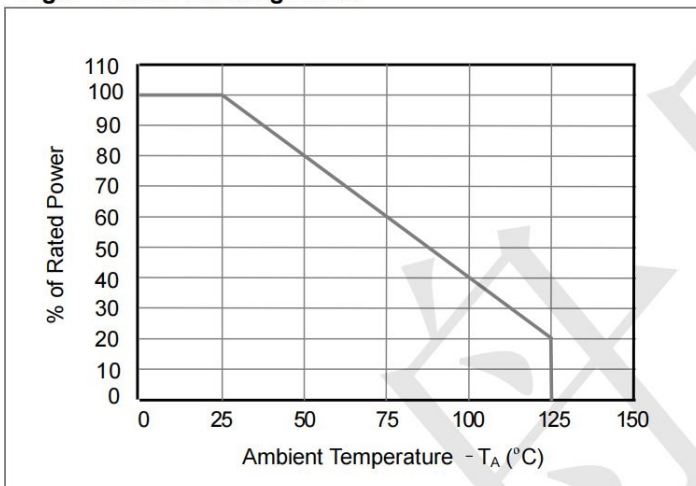
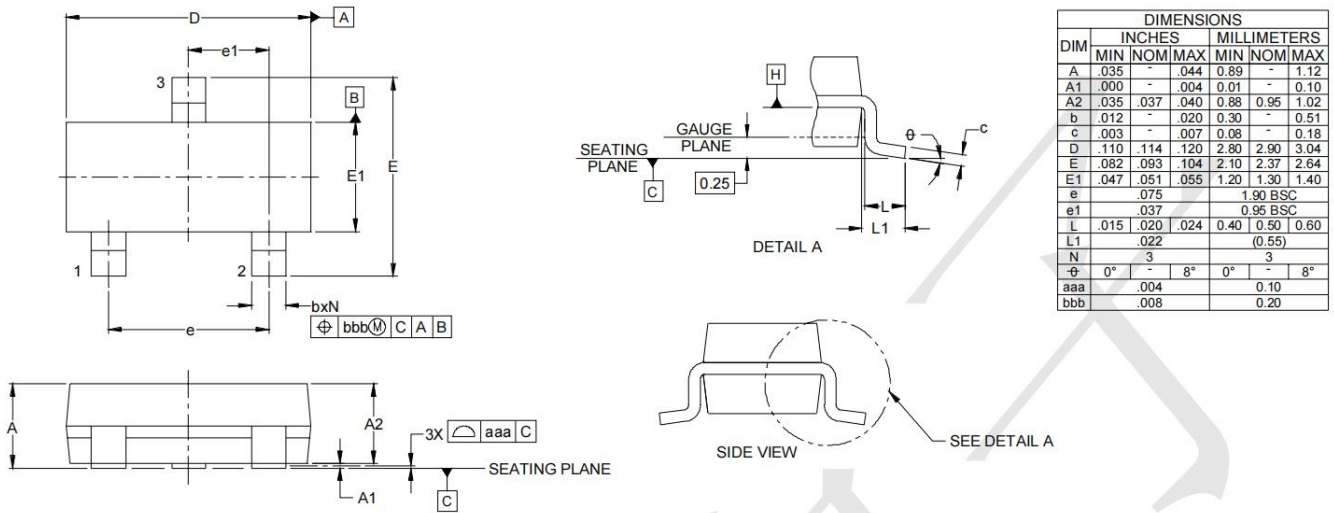


Fig3. Power Derating Curve



**Outline Drawing - SOT23**



**Land Pattern - SOT23**

