

Features

- Low operating voltage: 36V
- Ultra low capacitance: 4pF
- Ultra low leakage: nA level
- Low clamping voltage
- -IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 30\text{kV}$
 - Contact discharge: $\pm 30\text{kV}$
- -IEC61000-4-4 (EFT) 40A (5/50ns)
- 3-pin leadless package
- These are Pb-Free Devices
- Response Time is Typically $< 1\text{ ns}$

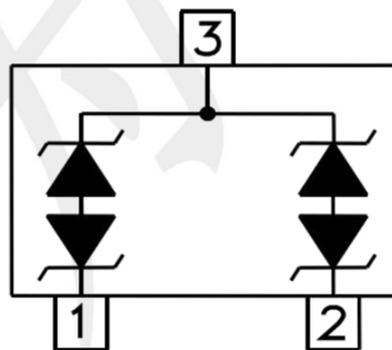
Mechanical Characteristics

- Package: SOT-23
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound
- Terminal Connections: See Diagram Below
- -IEC 61000-4-2 (ESD) immunity test

Applications

- Industrial Controls
- Personal Digital Assistants
- Notebooks and Handhelds
- CAN Bus Protection
- Automotive Appllcatrons

Dimensions and Pin Configuration



SOT-23

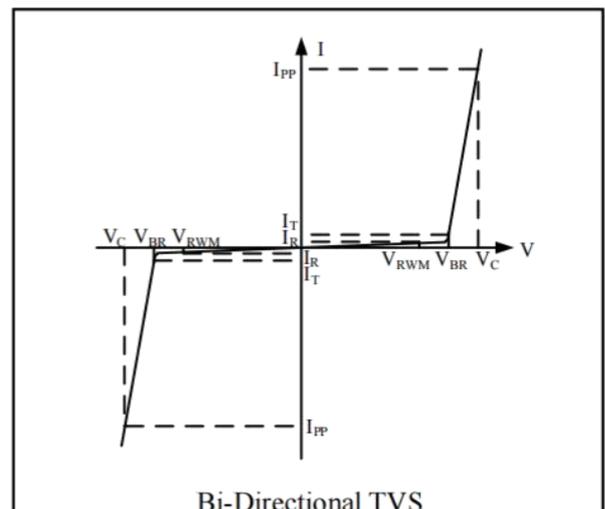
Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20µs)	Ppk	180	W
IEC 61000-4-2 Spec Current at 60 ns (A)	Ipp	3	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	VESD	±15 ±15	KV
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	--	--	36	V	
Breakdown Voltage	VBR	38	--	44	V	IT= 1mA
Reverse Leakage Current	IR	--	--	0.1	µA	VRWM=36V
Clamping Voltage	VC	--	45	51	V	Ipp=1A(8x 20us pulse)
Clamping Voltage	VC	--	64	72	V	Ipp=3A(8x 20us pulse)
Junction Capacitance	CJ	--	10	--	pF	VR =0V, f =1MHz, Pin1,2 to Pin3
Junction Capacitance	CJ	--	5	8	pF	VR =0V, f =1MHz, Pin1, to Pin2

Symbol	Parameter
VRWM	Nominal Reverse Working Voltage
IR	Reverse Leakage Current @ VRWM
VBR	Reverse Breakdown Voltage @ IT
IT	Test Current for Reverse Breakdown
VC	Clamping Voltage @ Ipp
Ipp	Maximum Peak Pulse Current
CESD	Parasitic Capacitance
VR	Reverse Voltage
f	Small Signal Frequency



Characteristic Curves

Fig1. 8/20 μ s Pulse Waveform

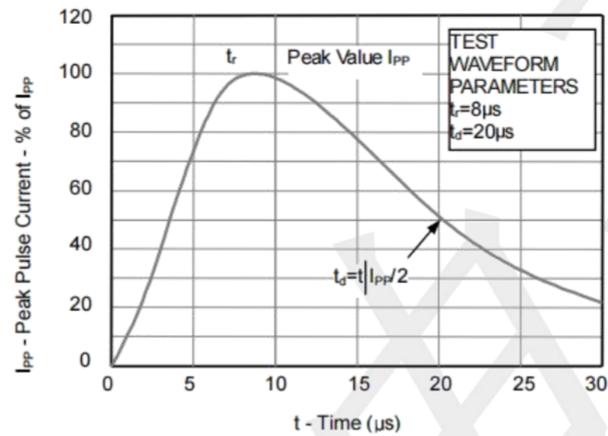


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

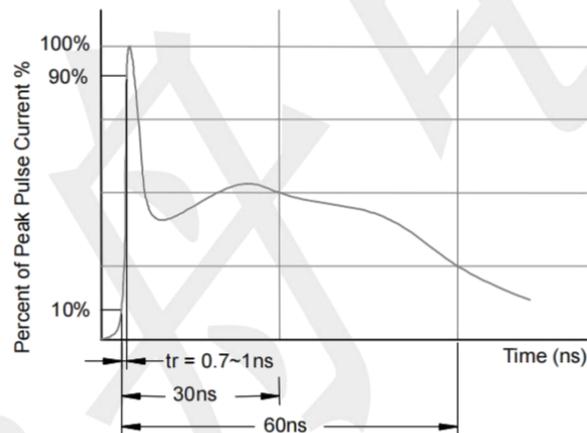
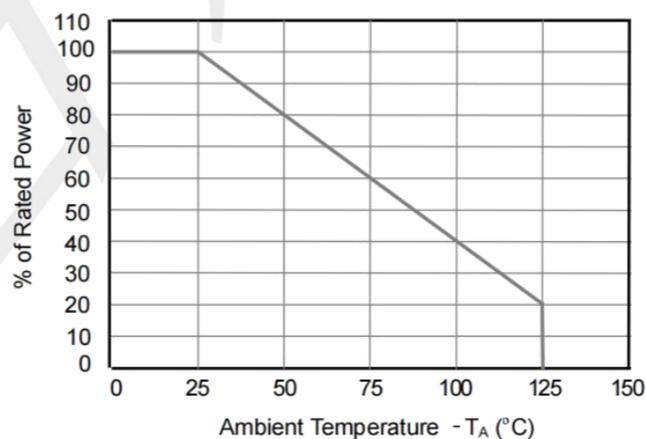
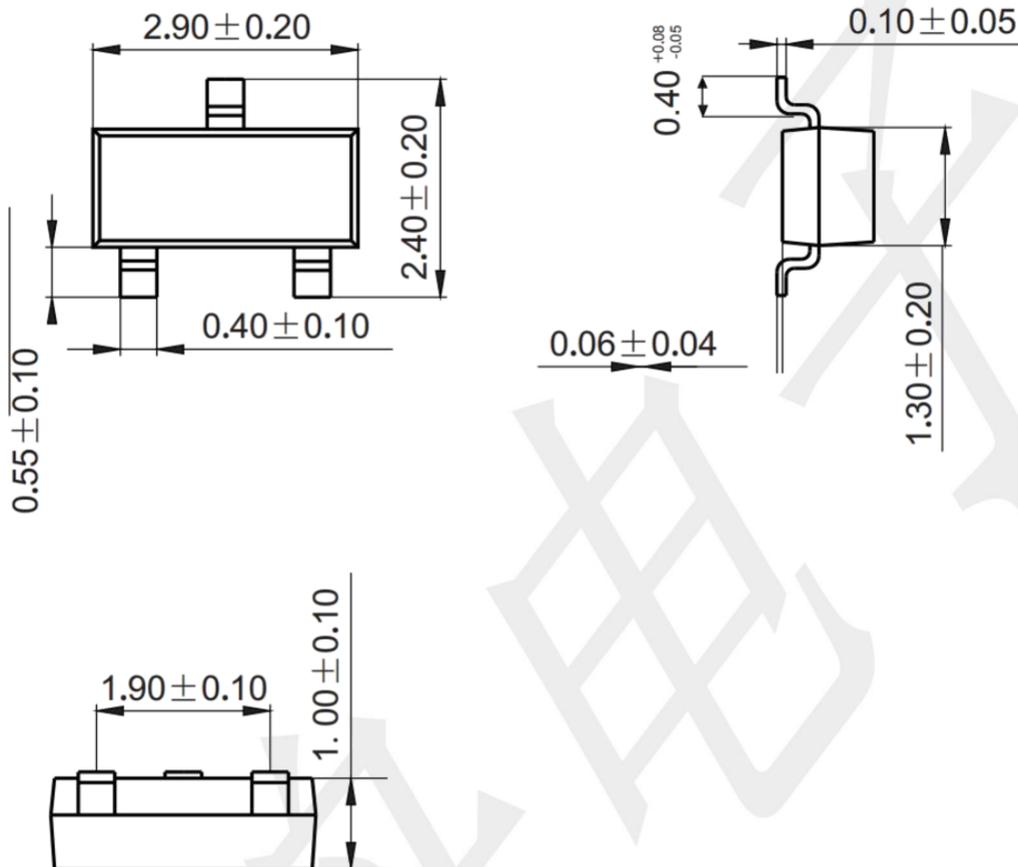


Fig3. Power Derating Curve



Package Outline Dimensions (unit: mm)

SOT-23



Mounting Pad Layout (unit: mm)

