

Features

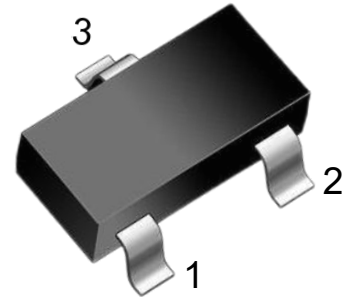
- Up to 2 lines protects
- Junction capacitance (Max value:0.4pF)
- Peak Pulse current (8/20 μ s) MAX: 6A
- IEC61000-4-2 (ESD) $\pm$ 25kV (air), $\pm$ 15kV (contact)
- Low clamping voltage
- Low leakage current
- Working voltages:3.3V
- RoHS Compliant
- Compliant to Halogen-free

Applications

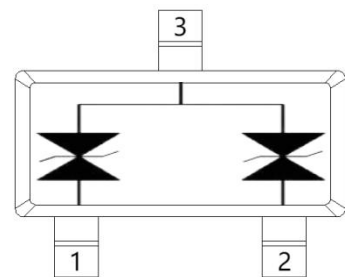
- Signal port (USB, HDMI)
- Notebooks and Handhelds, Audio Players, Peripherals
- Personal Digital Assistants, Portable Instrumentation

Mechanical Characteristics

- Package: SOT-23
- Lead Finish:Matte Tin
- Case Material: “Green” Molding Compound.
- UL Flammability Classification Rating 94V-0
- Marking Information : U33



SOT-23



PIN Configuration

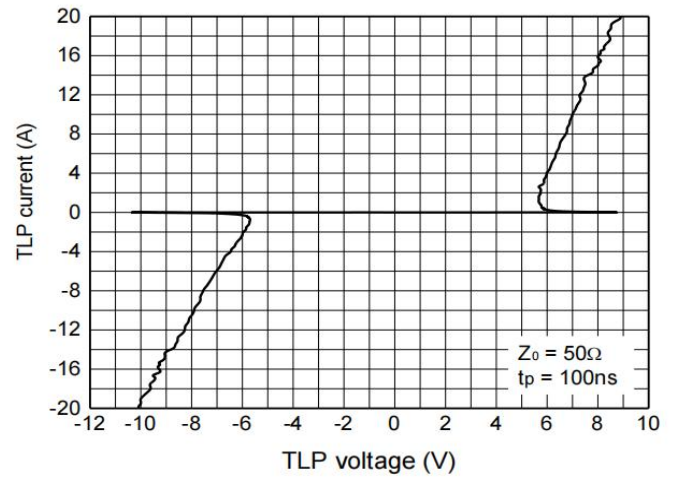
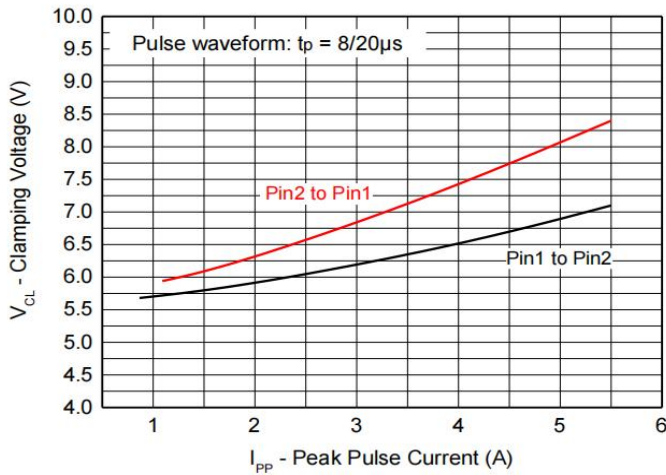
Absolute Maximum Ratings (T=25°C, RH=45%-75%, unless otherwise noted)

Parameters	Symbol	Value	Unit
Peak Pulse Power (tp=8/20μs waveform)	P _{PP}	60	W
Peak Pulse Current (8/20μs)	I _{PP}	6	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V _{ESD}	±25 ±15	KV
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

Electrical Characteristics (T=25°C, RH=45%-75%, unless otherwise noted)

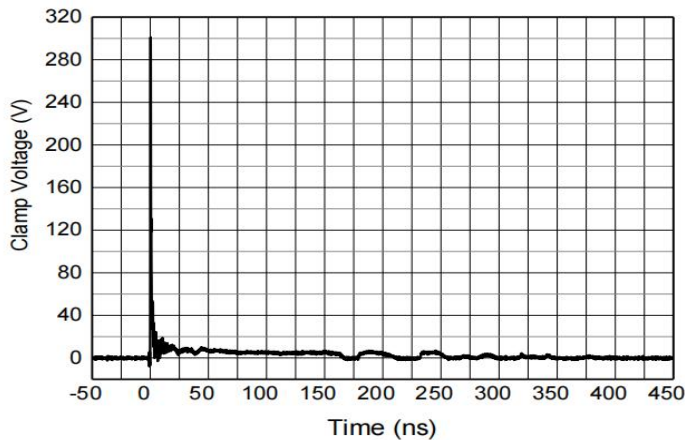
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V _{RWM}				3.3	V
Reverse Breakdown Voltage	V _{(BR)R}	I _R = 1mA	3.8	7		V
Reverse Leakage Current	I _R	V _R = 3.3V			0.2	uA
Clamping voltage	V _C	I _{PP} = 1A, T _P =8/20us, pin1 or pin2 to pin3		5	8	V
Clamping voltage	V _C	I _{PP} =6A, T _P =8/20us, pin1 or pin2 to pin3		8	10	V
Junction capacitance	C _J	V _R =0V, f =1MHz, between I/O pins, between pin1 and pin2		0.25	0.4	pF
Junction capacitance	C _J	V _R =0V, f =1MHz, any I/O pin to ground, between pin1 or pin2 to pin3		0.15	0.2	pF

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

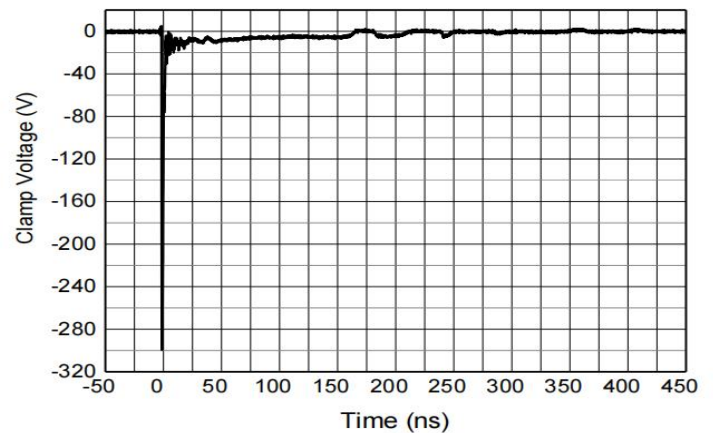


Clamping Voltage vs. Peak Pulse Current

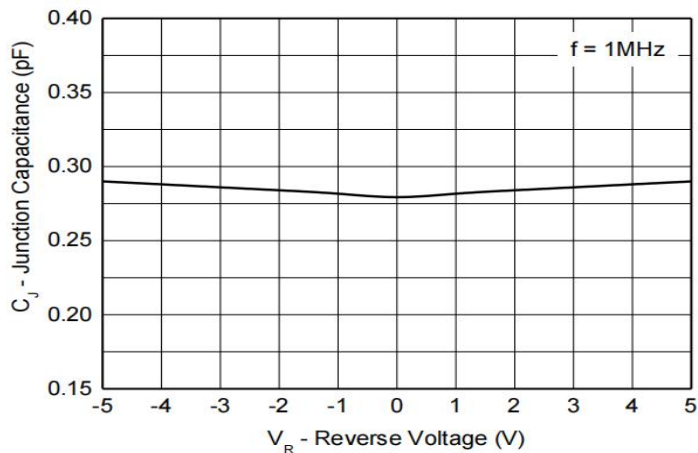
TLP IV Curve



+8kV contact discharge per IEC61000-4-2

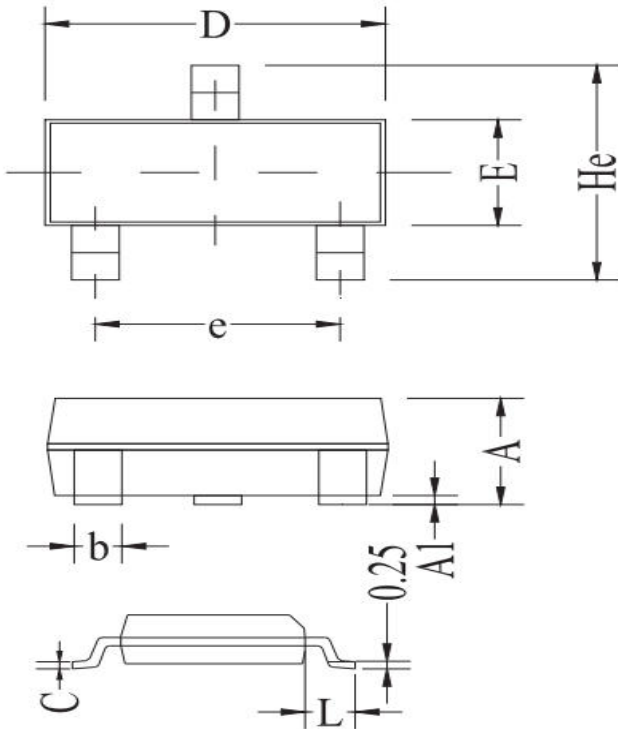


-8kV contact discharge per IEC61000-4-2



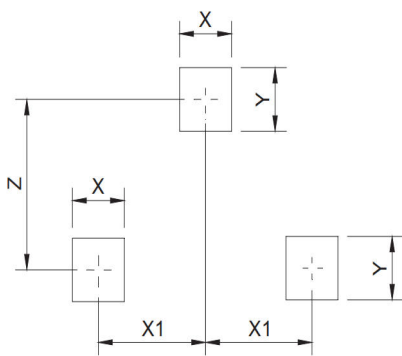
Capacitance vs. Reverse Voltage

Package mechanical data



Symbol	Dimensional	
	Millimeters	
	min	max
A	0.9	1.15
A1	0	0.1
b	0.3	0.5
C	0.08	0.15
D	2.8	3.0
e	1.8	2.0
E	1.2	1.4
L	(0.55)	
He	2.25	2.55

Suggested Land Pattern



Symbol	Dimensional
	Millimeters
X	(0.6)
Y	(0.8)
Z	(2.02)
X1	(0.95)