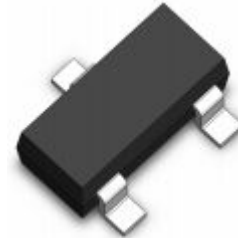


Features

- Ultra low leakage: nA level
- Operating voltage: 36V
- Low clamping voltage
- Complies with following standards:
 - 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)
 - IEC61000-4-5 (Lightning) 6A (8/20 μs)
- RoHS Compliant

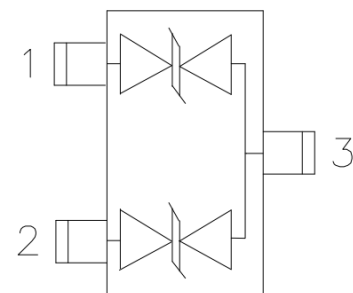
Dimensions SOT-23



Applications

- Cellular Handsets and Accessories
- Notebooks and Handhelds
- Portable Instrumentation
- Set Top Box
- Industrial Controls
- Server and Desktop PC

Pin Configuration



Mechanical Characteristics

- Package: SOT-23
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 3,000 pcs
- Reel Size: 7 inch
- Device Marking: DB2

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

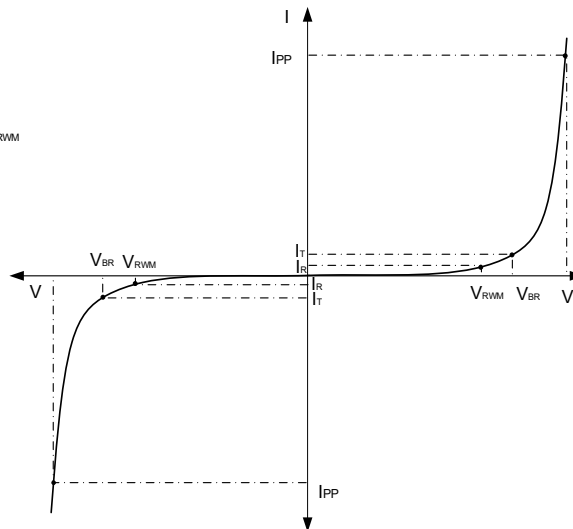
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	P _{pp}	360	W
ESD per IEC 61000-4-2 (Air)	V _{ESD}	± 30	kV
ESD per IEC 61000-4-2 (Contact)		± 30	
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{STJ}	-55 to +125	°C

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

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				36	V
Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	40			V
Reverse Leakage Current	I_R	$V_{RWM} = 36\text{V}$			0.5	μA
Clamping Voltage	V_C	$I_{PP} = 6\text{A}$ (8 x 20 μs pulse) PIN1/PIN2 to PIN3		54	60	V
Junction Capacitance	C_J	$V_R = 0\text{V}$, $f = 1\text{MHz}$ PIN1/PIN2 to PIN3		12	16	pF

Electrical Parameters (TA=25°C unless otherwise specified)

- V_{RWM} Reverse Working Voltage Max.
- I_R Maximum Reverse Leakage Current @ V_{RWM}
- V_{BR} Reverse Breakdown Voltage
- I_{PP} Maximum Reverse Peak Pulse Current
- V_C Clamping Voltage @ I_{PP}



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

Figure 1: Peak Pulse Power vs. Pulse Time

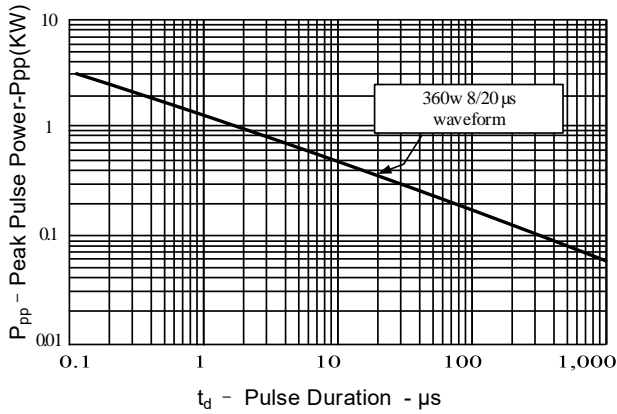


Figure 2: Power Derating Curve

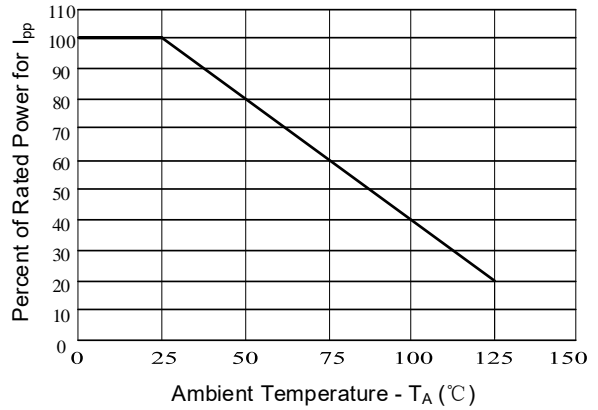


Figure 3: Pulse Waveform

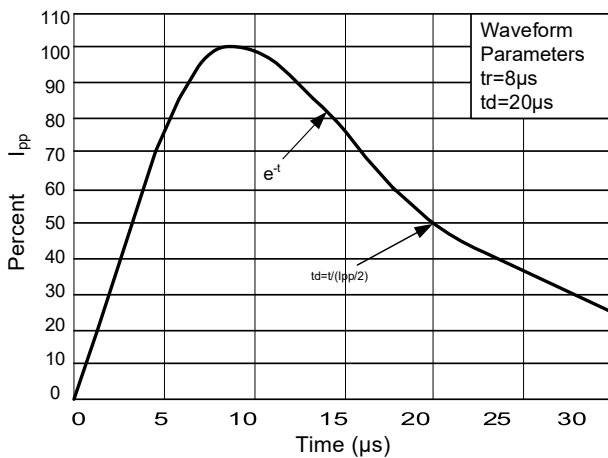
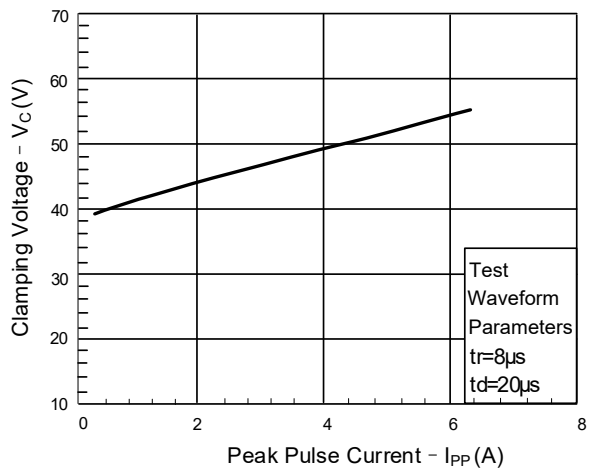
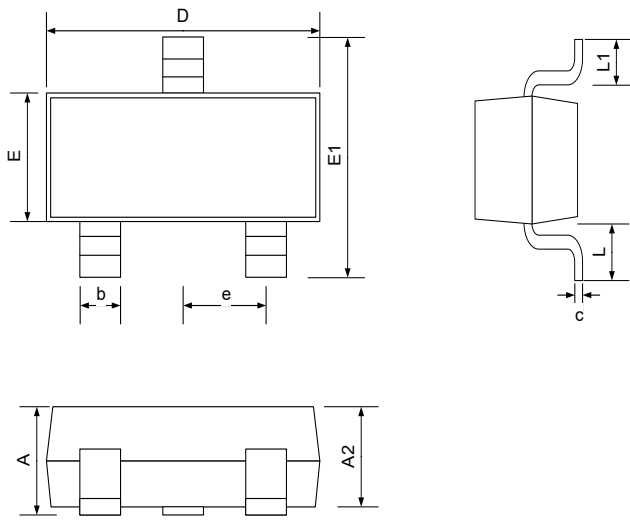


Figure 4: Clamping Voltage vs. Ipp

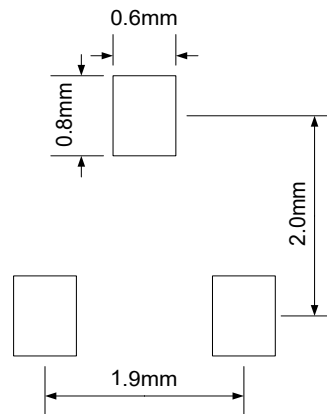


SOT-23 Package Outline Drawing



COMMON DIMENSION (mm)			
PKG	SOT-23		
REF.	MIN.	NOM.	MAX.
A	0.900		1.150
A2	0.900		1.050
b	0.300		0.500
c	0.080		0.150
D	2.800		3.000
E	1.200		1.400
E1	2.250		2.550
e		0.950	
L		0.550	
L1	0.300		0.500

Suggested Land Pattern



Notes: This PCB layout is for reference purposes only.

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