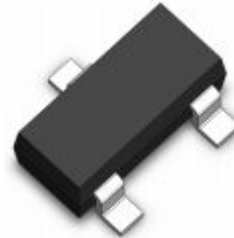


Features

- Ultra low leakage: nA level
- Operating voltage: 12V
- 150W peak pulse power(8/20μs)
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: ±25kV
 - Contact discharge: ±20kV
 - IEC61000-4-5 (Lightning) 4A (8/20μs)
- RoHS Compliant

Dimensions SOT-23



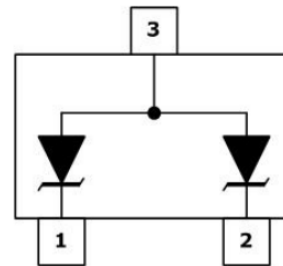
Applications

- Computers
- Printers
- Communication systems

Mechanical Characteristics

- Package: SOT-23
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel:3,000pcs
- Reel Size:7inch
- Device Marking:12M

Pin Configuration



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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppp	150	W
ESD per IEC 61000-4-2 (Air)	V _{ESD}	±25	Kv
ESD per IEC 61000-4-2 (Contact)		±20	
Operating Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STJ}	-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}				12	V
Breakdown Voltage	V_{BR}	$I_T = 1mA$	13.3			V
Reverse Leakage Current	I_R	$V_{RWM} = 12V$			0.5	μA
Clamping Voltage	V_C	$I_{PP} = 1A$ (8 x 20 μs pulse)			19	V
Clamping Voltage	V_C	$I_{PP} = 4A$ (8 x 20 μs pulse)			37	V
Junction Capacitance	C_J	$V_R = 0V, f = 1MHz$		50		pF

Characteristic Curves

Fig1. 8/20 μs Pulse Waveform

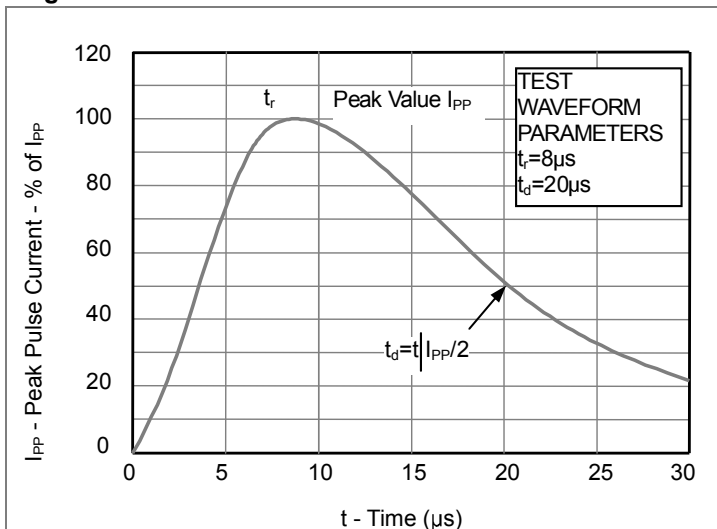


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

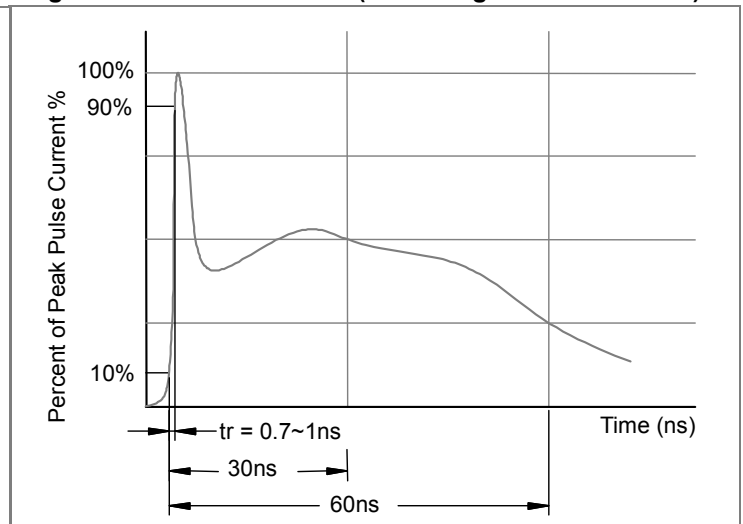
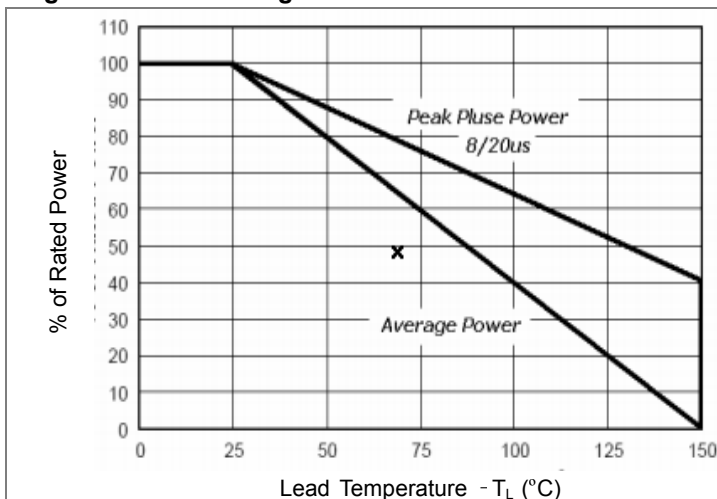
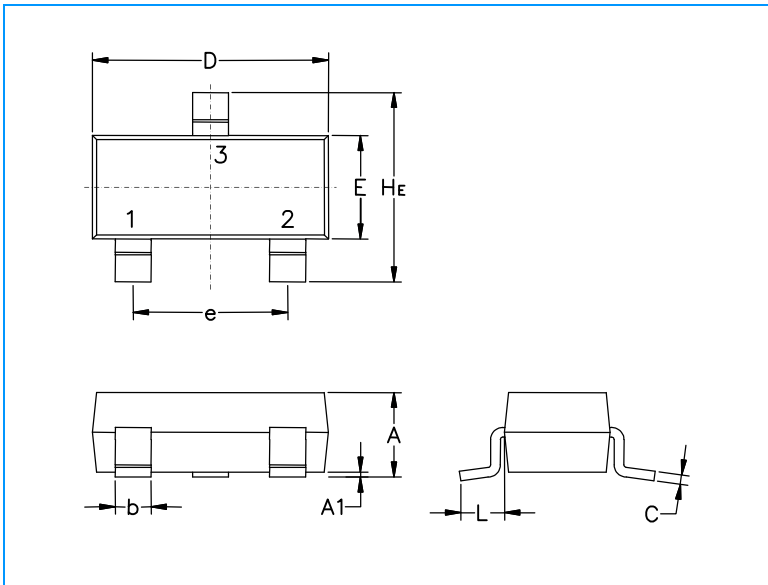


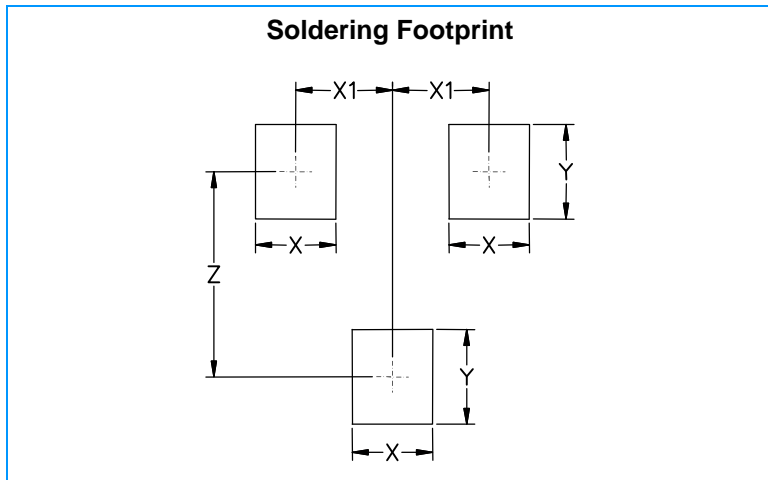
Fig3. Power Derating Curve



SOT-23 Package Outline & Dimensions



Symbol	Millimeters			Inches		
	Min.	Nom.	Max.	Min.	Nom.	Max.
A	0.89	1.00	1.11	0.035	0.040	0.044
A1	0.01	0.06	0.10	0.001	0.002	0.004
b	0.37	0.44	0.50	0.15	0.18	0.020
c	0.09	0.13	0.18	0.003	0.005	0.007
D	2.80	2.90	3.04	0.110	0.114	0.120
E	1.20	1.30	1.40	0.047	0.051	0.055
e	1.78	1.90	2.04	0.070	0.075	0.081
L	0.35	0.54	0.69	0.014	0.021	0.029
HE	2.10	2.40	2.64	0.083	0.094	0.104



Symbol	Millimeters	Inches
X	0.80	0.031
X1	0.95	0.037
Y	0.90	0.035
Z	2.00	0.079