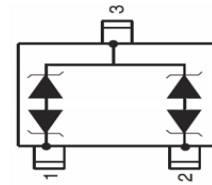
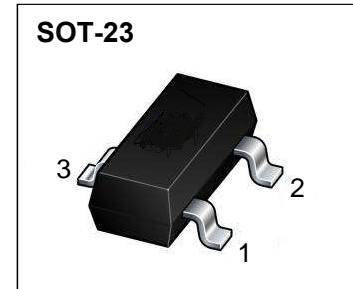


ESD Protection Diode

FEATURES

- Ultra low leakage: nA level.
- Low clamping voltage.
- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.



APPLICATIONS

- CAN bus protection
- Automotive applications

DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
ESDSOT24B	24B	3000/Tape&Reel

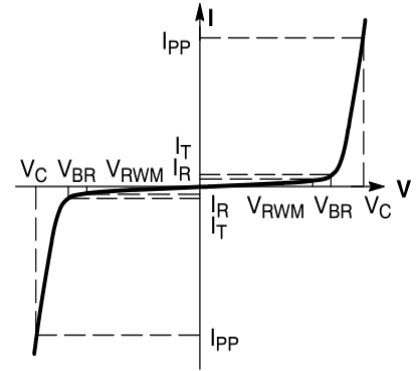
MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
IEC 61000-4-2 (ESD)	Contact	±30	kV
	Air	±30	
peak pulse power@8/20 μs	PPP	300	W
peak pulse current @8/20 μs	IPP	7	A
Storage Temperature Range	Tstg	-55 ~ +150	°C
Operating Temperature Range	TJ	-55 ~ +150	°C



ELECTRICAL CHARACTERISTICS (Ta= 25°C)

Symbol	Parameter
IPP	Maximum Reverse Peak Pulse Current
VC	Clamping Voltage @ IPP
VRWM	Working Peak Reverse Voltage
IR	Maximum Reverse Leakage Current @ VRWM
VBR	Breakdown Voltage @ IT
IT	Test Current
IF	Forward Current
VF	Forward Voltage @ IF
Ppk	Peak Power Dissipation
C	Capacitance @ VR = 0 and f = 1.0 MHz



ELECTRICAL CHARACTERISTICS (Ta= 25°C)

Characteristic	Symbol	Min.	Typ.	Max.	Unit
reverse stand-off voltage	VRWM	-	-	24	V
reverse leakage current (VRWM = 24 V, Pin 1、 2to Pin 3)	IRM	-	-	200	nA
(VRWM = 24 V, Pin 3 to Pin 1、 2)		-	-	200	
breakdown voltage (IT = 1 mA, Pin 1、 2to Pin 3)	VBR	26.2	-	32	V
(IT = 1 mA, Pin 3 to Pin 1、 2)					
Clamping Voltage (IPP = 5A (8 x 20µs pulse)	VC	-	-	40	V
Clamping Voltage (IPP = 7A (8 x 20µs pulse)	VC	-	-	44	V
Junction Capacitance (VR = 0V, f = 1MHz)	CJ	-	30	-	pF



Typical Characteristics

Fig. 1 - 8 X 20µs Pulse Waveform

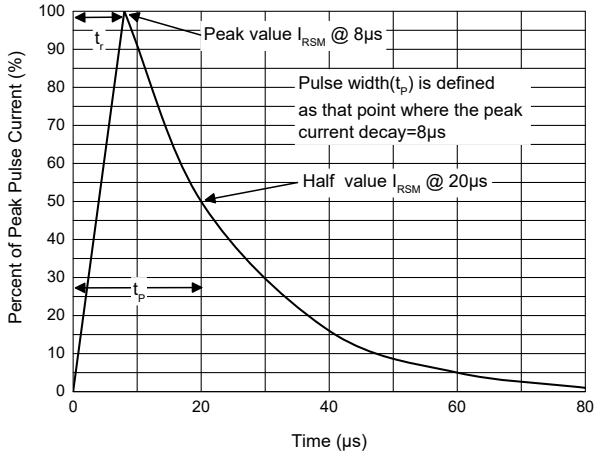


Fig. 2 - Capacitance Characteristics

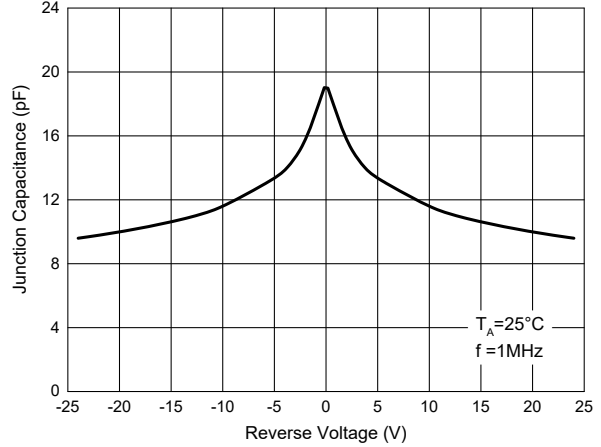


Fig. 3 - Clamping Voltage Characteristics

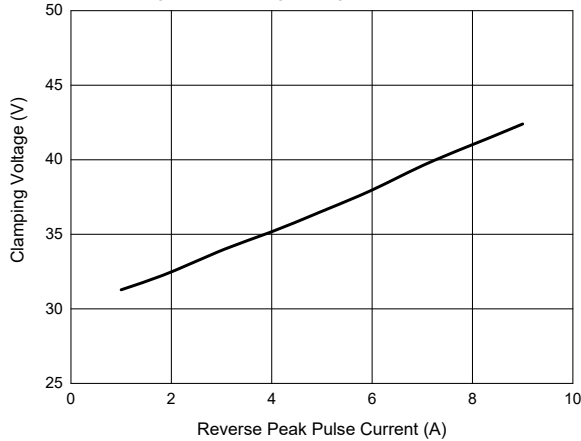


Fig. 4 - TLP Measurement

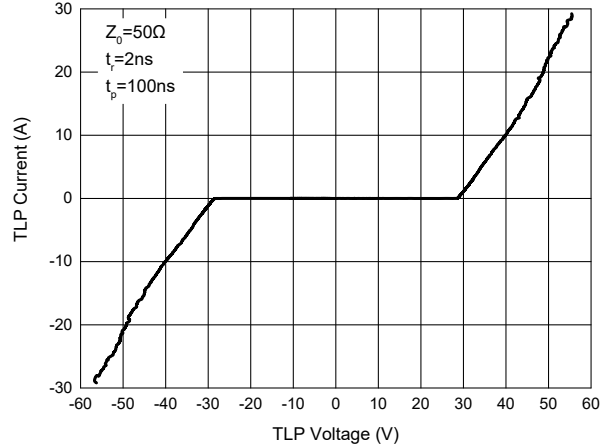


Fig.5: Typical Reverse Characteristics

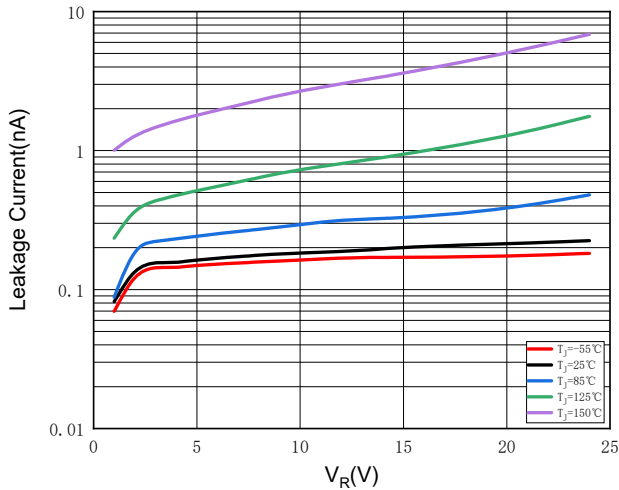
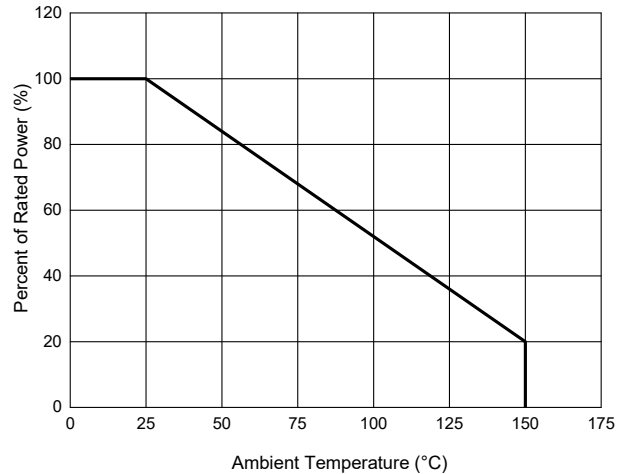


Fig. 6 - Pulse Derating Curve

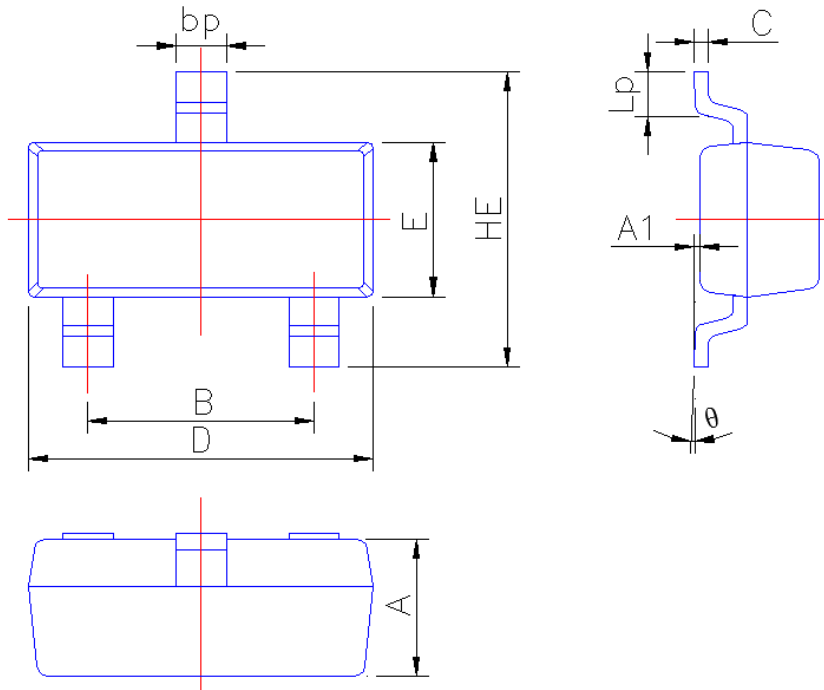




PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



Symbol	Dimension in Millimeters	
	Min	Max
A	0.90	1.10
A1	0.013	0.100
B	1.80	2.00
bp	0.35	0.50
C	0.09	0.150
D	2.80	3.00
E	1.20	1.40
HE	2.20	2.80
Lp	0.20	0.50
θ	0°	5°