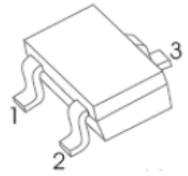
SOT-323
ESDSOT24BW

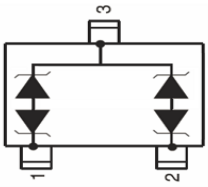
ESD Protection Diode

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.

SOT-323





APPLICATIONS

- CAN bus protection
- Automotive applications

DEVICE MARKING AND ORDERING INFORMATION

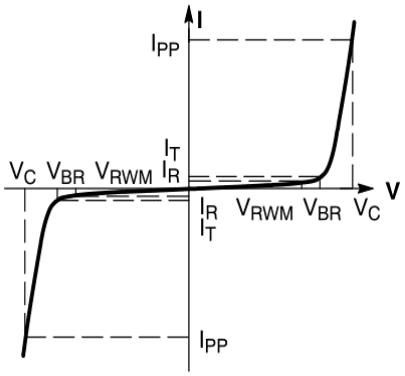
Device	Marking	Shipping
ESDSOT24B	24B	3000/Tape&Reel

MAXIMUM RATINGS(Ta = 25ºC)

Parameter		Symbol	Limits	Unit
IEC 61000−4−2 (ESD)	Contact		±30	kV
	Air		±30	
peak pulse power@8/20 μs		PPP	250	W
peak pulse current @8/20 μs		IPP	7	A
Storage Temperature Range		Tstg	−55～+150	ºC
Operating Temperature Range		TJ	−55～+150	ºC

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) (VRWM = 24 V,Pin 3 to Pin 1、2)	IRM	- -	- -	200 200	nA
breakdown voltage (IT = 1 mA,Pin 1、2to Pin 3) (IT = 1 mA,Pin 3 to Pin 1、2)	VBR	26.2	-	32	V
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

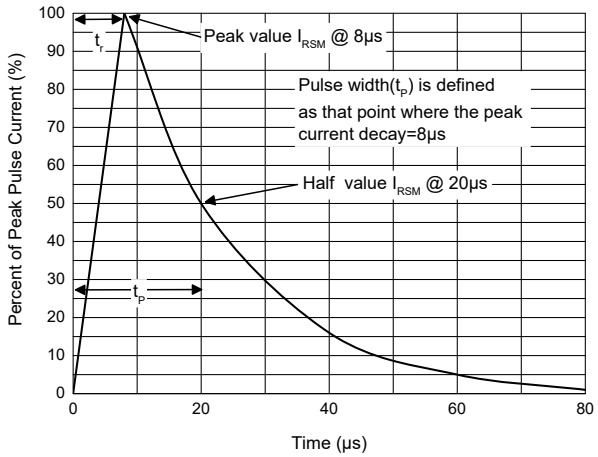


Fig. 2 - Capacitance Characteristics

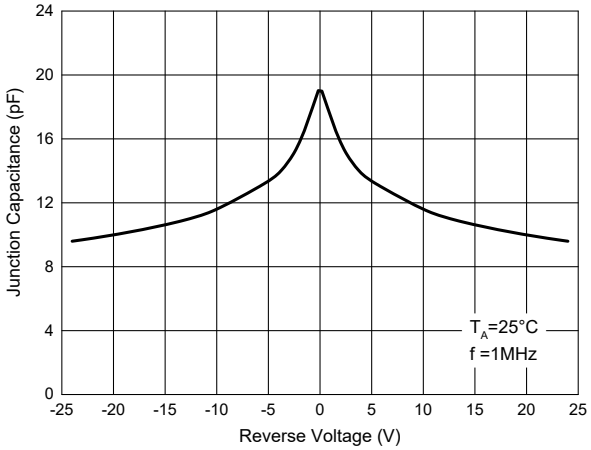


Fig. 3 - Clamping Voltage Characteristics

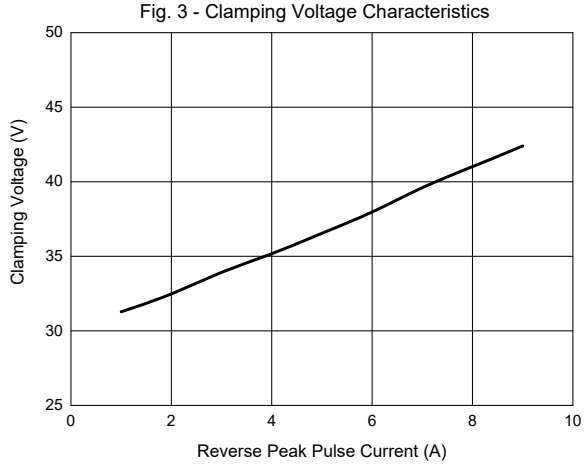


Fig. 4 - TLP Measurement

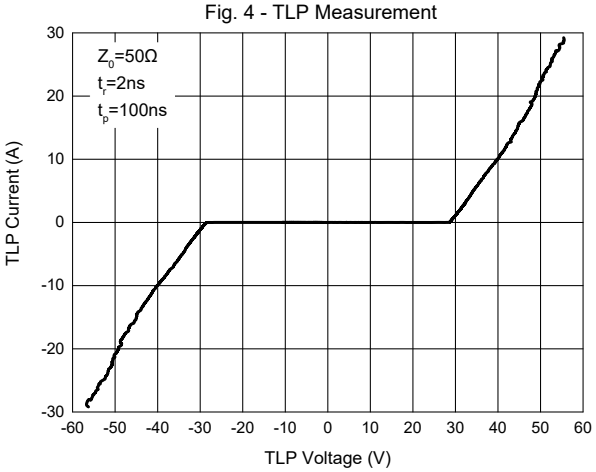


Fig.5:Typical Reverse Characteristics

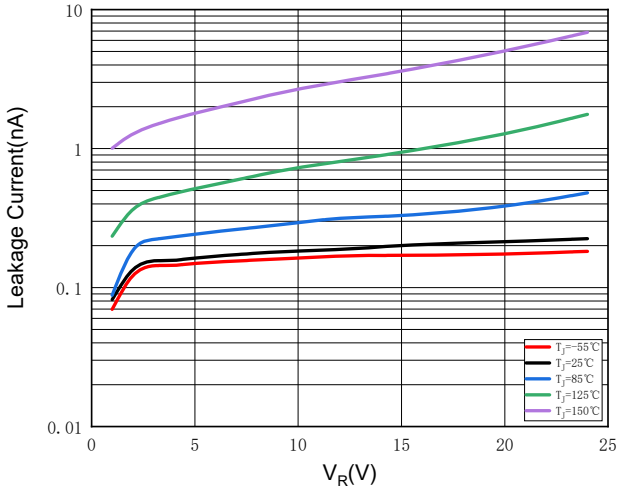


Fig. 6 - Pulse Derating Curve