



# MMBD301

SURFACE MOUNT SCHOTTKY DIODE

**Voltage Range 30 Volts**  
**Power 200mWatts**

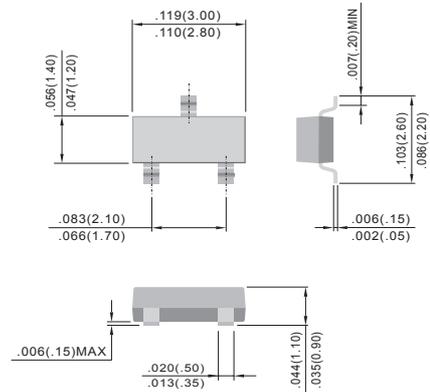
## Features

- \* Low Capacitance: 1.5 pF (Max) at  $V_R=15V$
- \* Very Low  $V_F$ : 0.36V (Typ) at  $I_F = 1mA$
- \* Extremely Fast Switching Speed

## Mechanical Data

Case: SOT-23 plastic  
Terminals: Solderable per MIL-STD-202, Method 208  
Approx Weight: 0.008 gram  
Marking: 301

## SOT-23



Dimensions in millimeters

## Absolute Ratings

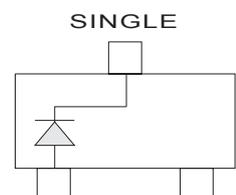
PARAMETER	SYMBOL	Value	UNIT
Maximum Reverse Voltage	$V_R$	30	V
Peak Reverse Voltage	$V_{RRM}$	30	V
Maximum Forward Current	$I_F$	0.2	A

## Thermal Characteristics

PARAMETER	SYMBOL	Value	UNIT
Power Dissipation (Note 1)	$P_{tot}$	200	mW
Thermal Resistance , Junction to Ambient (Note 1)	$R_{\theta JA}$	556	$^{\circ}C/W$
Junction Temperature	$T_j$	-55 to 125	$^{\circ}C$
Storage Temperature	$T_{stg}$	-55 to 150	$^{\circ}C$

## NOTES:

1.FR-5 Board=1.0 x 0.75 x 0.062 in.





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## Electrical Characteristics (T<sub>J</sub>=25°C, unless otherwise noted)

PARAMETER	SYMBOL	Test Condition	MIN.	TYP.	MAX.	UNIT
Reverse Breakdown Voltage	V <sub>(BR)</sub>	I <sub>R</sub> =10 μA	30			V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> =25V			0.2	μA
Forward Voltage	FV	I <sub>F</sub> =1.0mA			0.45	V
Forward Voltage	FV	I <sub>F</sub> =10mA			0.6	V
Total Capacitance	C <sub>T</sub>	V <sub>R</sub> =15V, f=1.0MHz			1.5	pF

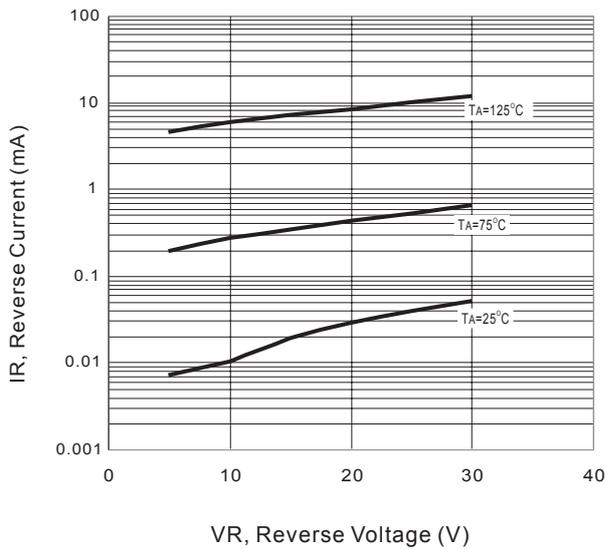


Fig. 1 Typical Reverse Characteristics

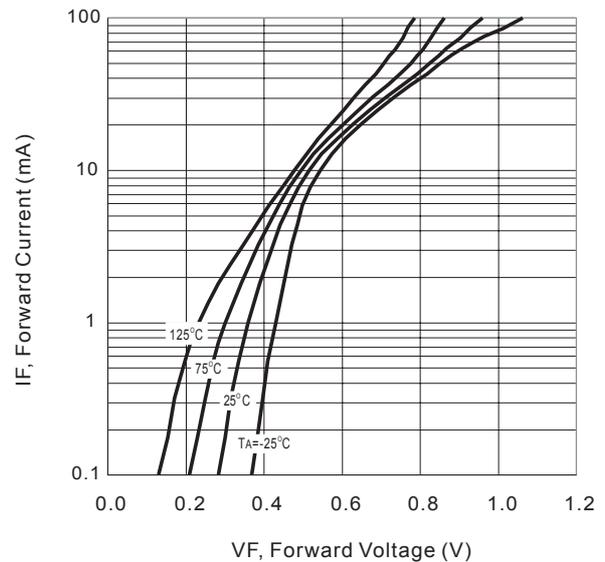


Fig. 2 Typical Forward Characteristics

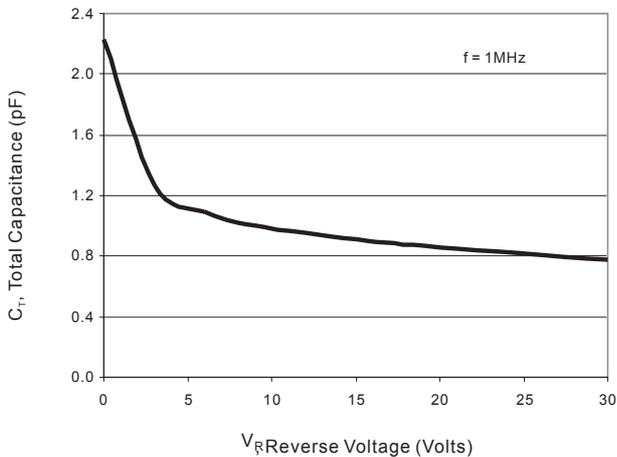


Fig. 3 Typical Total Capacitance

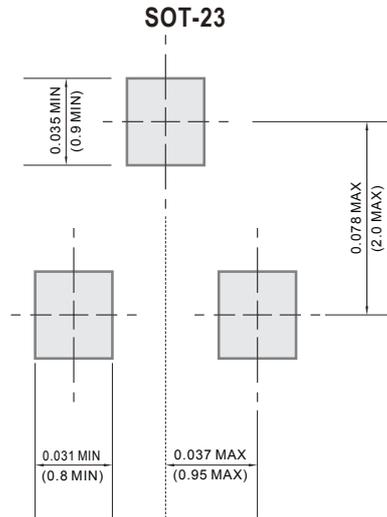


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## Mounting Pad Layout



Dimensions in millimeters

## Order Information

Packing information

T/R - 12K per 13" plastic Reel

T/R - 3.0K per 7" plastic Reel

## Legal Statement

### \* Important Notice

This information is intended to unambiguously characterize the product in order to facilitate the customer's evaluation of the device in the application. The information will help the customer's technical experts determine that the device is compatible and interchangeable with similar devices made by other vendors. The information in this data sheet is believed to be reliable and accurate. The specifications and information herein are subject to change without notice. New products and improvements in products and product characterization are constantly in process. Therefore, the factory should be consulted for the most recent information and for any special characteristics not described or specified.

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