

DATA SHEET

MMBD301

SURFACE MOUNT SCHOTTKY DIODE

VOLTAGE 30 Volts **POWER** 200 mWatts

SOT-23

Unit: inch (mm)

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

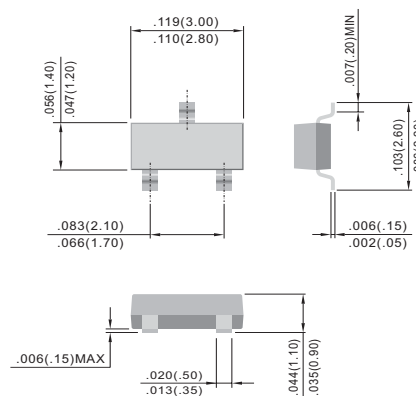
MECHANICAL DATA

Case: SOT-23 plastic

Terminals: Solderable per MIL-STD-202, Method 208

Approx Weight: 0.008 gram

Marking: 301



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

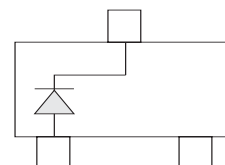
THERMAL CHARACTERISTICS

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

Note

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

SINGLE



ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	Test Condition	MIN.	TYP.	MAX.	UNIT
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=10\text{ }\mu\text{A}$	30			V
Reverse Leakage Current	I_R	$V_R=25\text{V}$			0.2	μA
Forward Voltage	V_F	$I_F=1.0\text{mA}$			0.45	V
Forward Voltage	V_F	$I_F=10\text{mA}$			0.6	V
Total Capacitance	C_T	$V_R=15\text{V}, f=1.0\text{MHz}$			1.5	pF

RATING AND CHARACTERISTIC CURVES

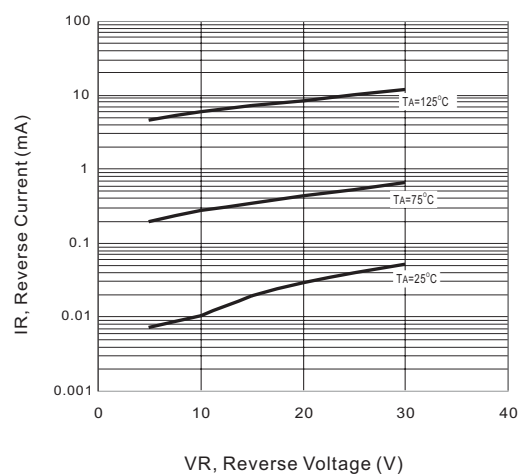


Fig.1 TYPICAL REVERSE CHARACTERISTICS

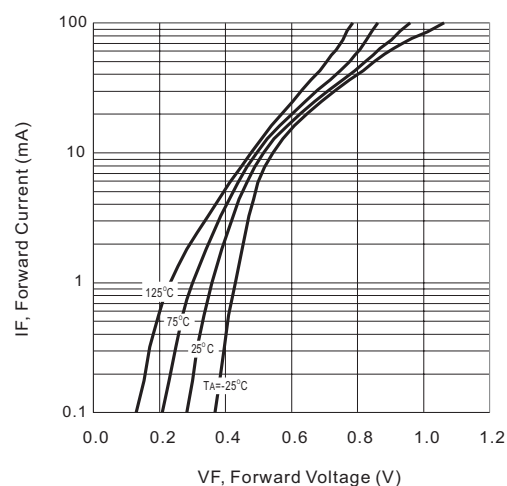


Fig.2-TYPICAL FORWARD CHARACTERISTICS

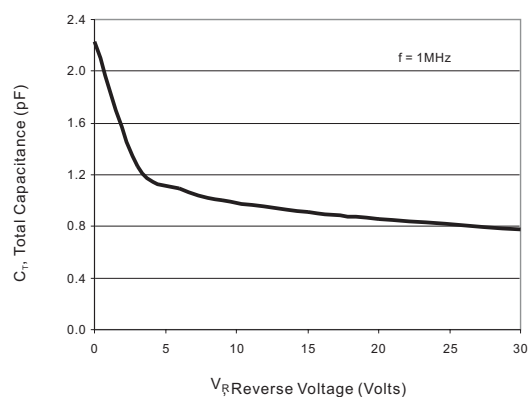
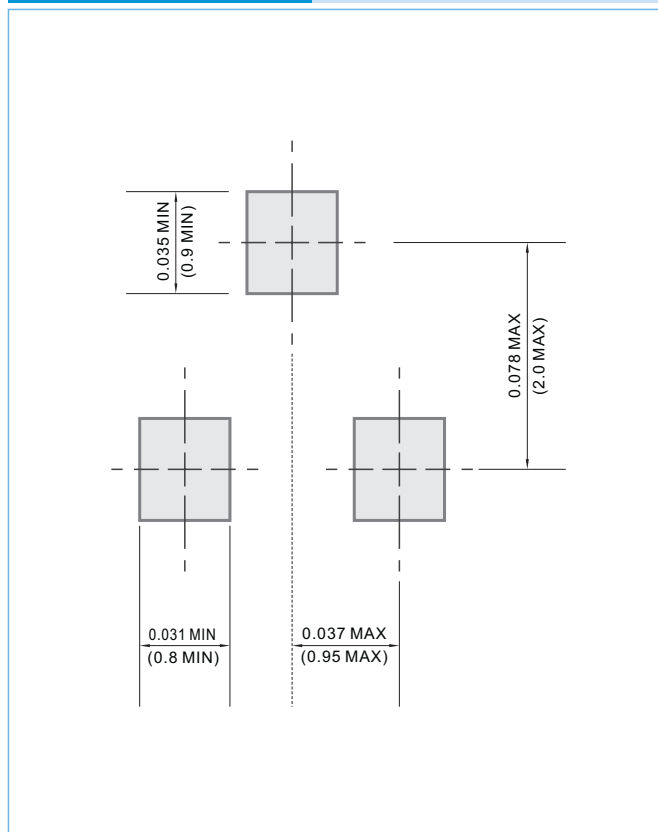


Fig.3 TYPICAL TOTAL CAPACITANCE

MOUNTING PAD LAYOUT

SOT-23

Unit: inch (mm)





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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