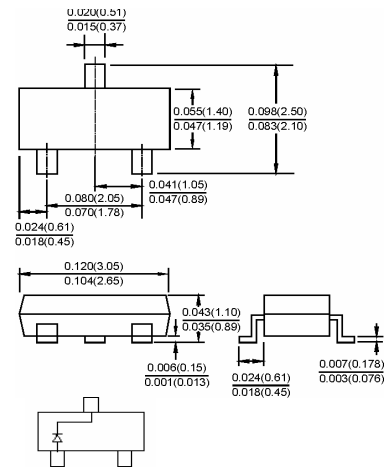


SOT-23



Dimensions in inches and (millimeters)

Features

- ✧ Low noise figure -6.0dB @1.0GHz
- ✧ Surface mount package ideally suited for automatic insertion.
- ✧ Very low capacitance –less than 1.0pF @zero volts.
- ✧ High forward conductance -0.5volts (typ.) @ $I_F=10\text{mA}$.

Applications

- ✧ High speed switching.

Ordering Information

Type No.	Marking	Package Code
MMBD101	4M	SOT-23

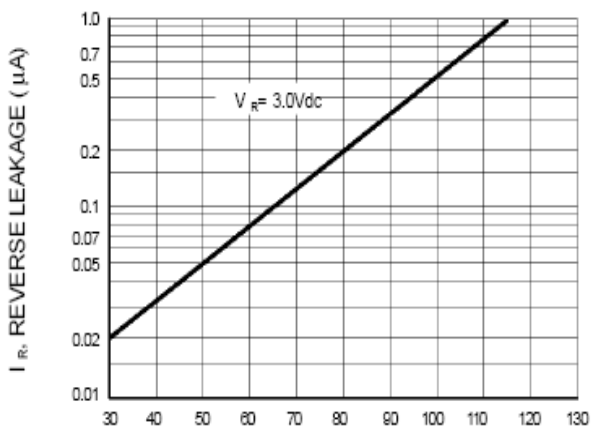
MAXIMUM RATING @ $T_a=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Limits	Unit
DC Reverse Voltage	V_R	7.0	V
Power Dissipation	P_d	225	mW
Operating Junction Temperature Range	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

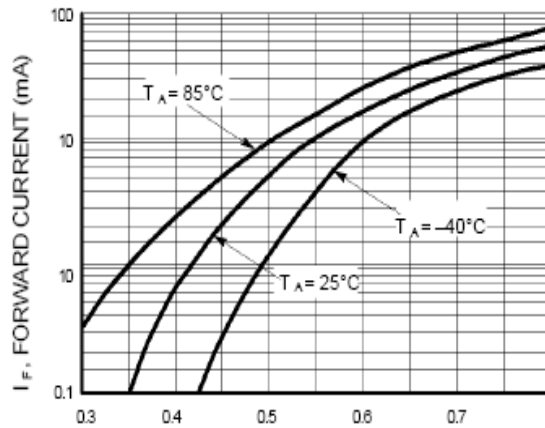
ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Min.	TYP.	MAX	UNIT	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	7.0	10		V	$I_R=10\mu\text{A}$
Forward Voltage	V_F		0.5	0.6	mV	$I_F=10\text{mA}$
Reverse Current	I_R		0.02	0.25	μA	$V_R=3.0\text{V}$
Diode Capacitance	C_D		0.88	1.0	pF	$V_R=0\text{V}, f=1\text{MHz}$

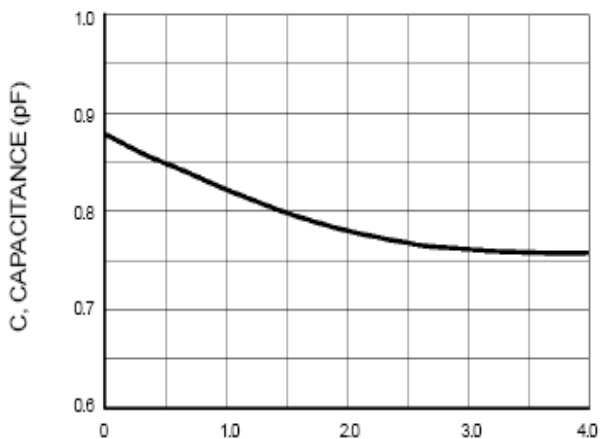
TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified



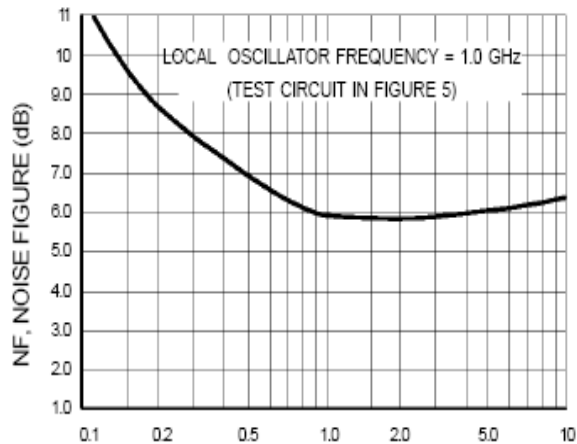
T_A , AMBIENT TEMPERATURE ($^\circ\text{C}$)
Figure 1. Reverse Leakage



V_F , FORWARD VOLTAGE (VOLTS)
Figure 2. Forward Voltage



V_R , REVERSE VOLTAGE (VOLTS)
Figure 3. Capacitance



P_{LO} , LOCAL OSCILLATOR POWER (mW)
Figure 4. Noise Figure