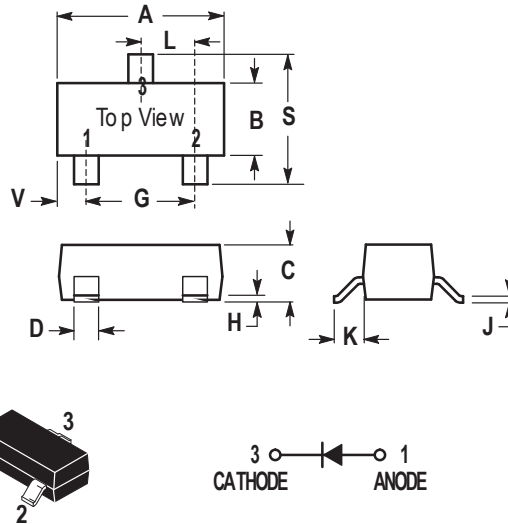


### Features

Low Turn-on Voltage  
For UHF mixer application  
Also suitable for use in detector and ultra-fast switching circuits  
Low Noise Figure - 6.0 dB Typ @ 1.0 GHz  
Very Low Capacitance - Less Than 1.0 pF @ 0V  
High Forward Conductance - 0.5V (Typ) @ IF = 10mA

### Mechanical Data

Case: SOT-23, Molded Plastic  
Terminals: Solderable per MIL-STD-202, Method 208  
Polarity: See Diagrams Below  
Weight: 0.008 grams (approx.)  
Mounting Position: Any



SOT-23		
Dim	Min	Max
A	2.800	3.040
B	1.200	1.400
C	0.890	1.110
D	0.370	0.500
G	1.780	2.040
H	0.013	0.100
J	0.085	0.177
K	0.450	0.600
L	0.890	1.020
S	2.100	2.500
V	0.450	0.600
All Dimension in mm		

### MAXIMUM RATINGS

		MMBD101	
Rating	Symbol	Value	Unit
Reverse Voltage	$V_R$	7.0	Volts
Forward Power Dissipation @ $T_A = 25^\circ\text{C}$ Derate above $25^\circ\text{C}$	$P_F$	225 1.8	mW mW/ $^\circ\text{C}$
Junction Temperature	$T_J$	+150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to +150	$^\circ\text{C}$

### DEVICE MARKING

MMBD101 = 4M
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### ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage ( $I_R = 10 \mu\text{A dc}$ )	$V_{(BR)R}$	7.0	10	—	Volts
Diode Capacitance ( $V_R = 0, f = 1.0 \text{ MHz}$ )	$C_T$	—	0.88	1.0	pF
Forward Voltage ( $I_F = 10 \text{ mA dc}$ )	$V_F$	—	0.5	0.6	Volts
Reverse Leakage ( $V_R = 3.0 \text{ V dc}$ )	$I_R$	—	0.02	0.25	$\mu\text{A dc}$

## RATINGS AND CHARACTERISTIC CURVES MMBD101

Figure 1. Reverse Leakage

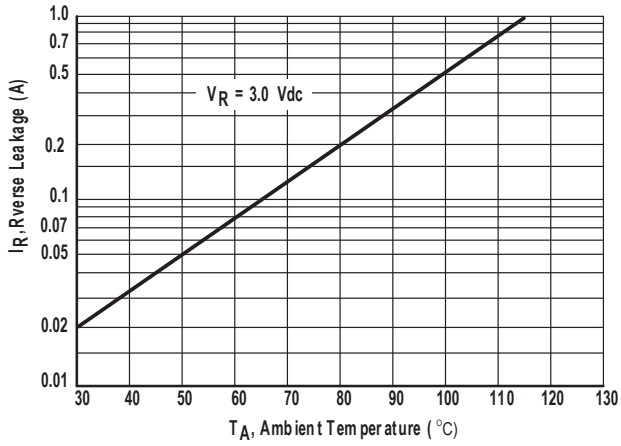


Figure 2. Forward Voltage

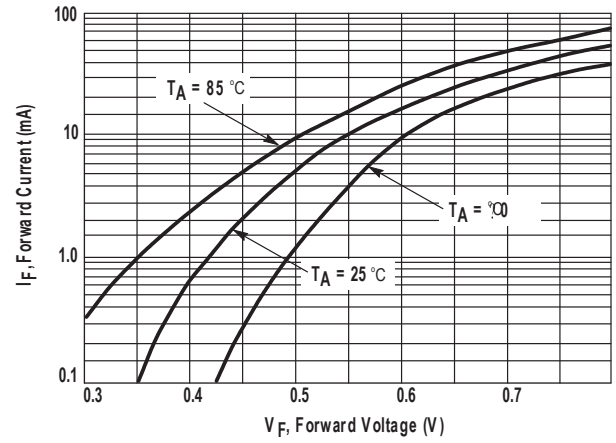


Figure 3. Capacitance

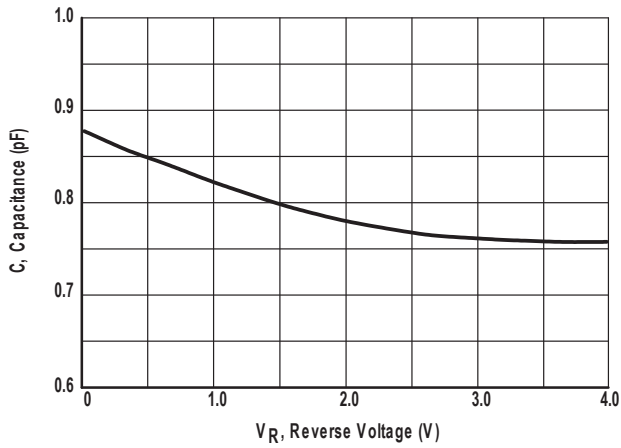


Figure 4. Noise Figure

