

MMBD301

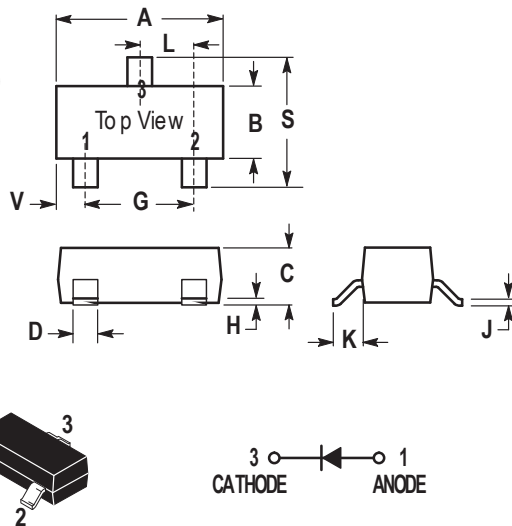
Surface Mount Schottky
Barrier Diode

Features

- * Low Turn-on Voltage
- * For UHF and VHF detector application
- * Also suitable for some others Fast Switching R_F and digital application
- * Extremely Low Minority Carrier Lifetime - 15ps(Typ)
- * Low Reverse Leakage - $I_R=13nA_{dc}$ (Typ)
- * Very Low Capacitance-1.5pF(Max) $@V=15VR$

Mechanical Data

- * Case . 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	30	Volts
Forward Power Dissipation @ $T_A = 25^\circ C$ Derate above $25^\circ C$	P_F	200 2.0	mW mW/ $^\circ C$
Operating Junction Temperature Range	T_J	-55 to +125	$^\circ C$
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ C$

DEVICE MARKING

MMBD701 = 5H

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

Characteristic	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage ($I_R = 10 \mu A_{dc}$)	$V_{(BR)R}$	30	—	—	Volts
Total Capacitance ($V_R = 15V_f = 1.0 \text{ MHz}$) Figure 1	C_T	—	0.9	1.5	pF
Reverse Leakage ($V_R=25V$) Figure 3	I_R	—	13	200	NA $_{dc}$
Forward Voltage ($I_F = 10 \text{ mA}_{dc}$) Figure 4	V_F	—	0.38	0.45	V $_{dc}$
Forward Voltage ($I_F = 10 \text{ mA}_{dc}$) Figure 4	V_F	—	0.52	0.6	V $_{dc}$

RATINGS AND CHARACTERISTIC CURVES MMBD301

Figure 1 .Total Capacitance

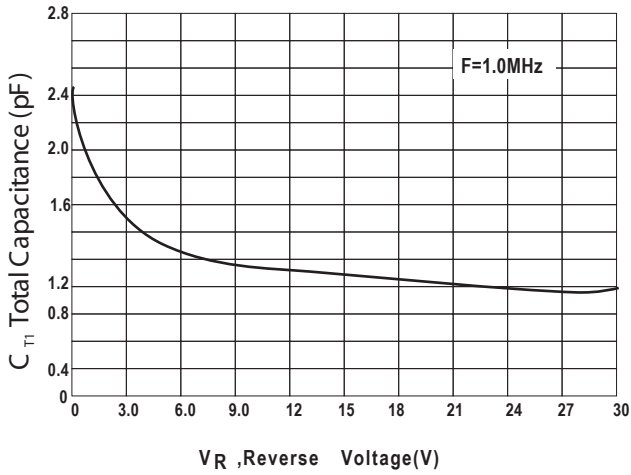


Figure 2 . Minority Carrier Lifetime

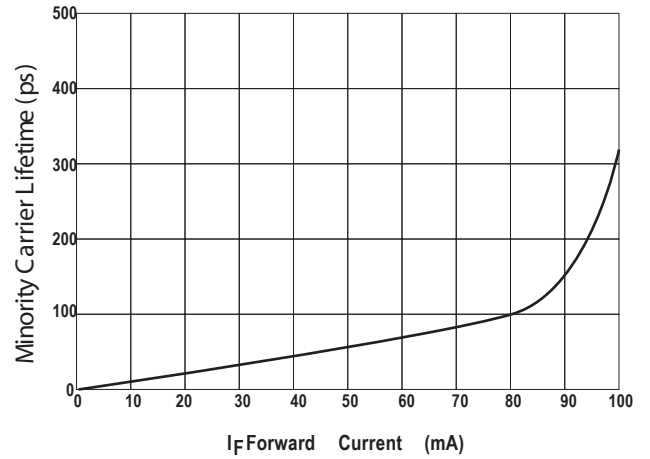


Figure 3 .Reverse Leakage

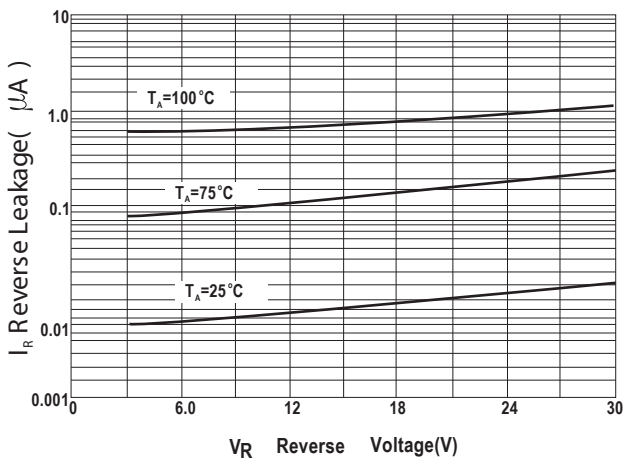


Figure 4 .Forward Voltage

