



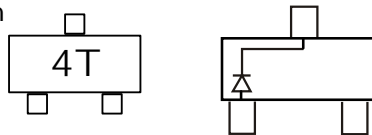
MMBD301

30 Volts Schottky Barrier Diodes

Features

- High Efficiency UHF and VHF Detector Applications.
- Low Capacitance and Low Reverse Leakage
- Extremely Low Minority Carrier Lifetime – 15ps (Typ)
- Lead Free Finish/Rohs Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

Pin Configuration
Top View



Maximum Ratings

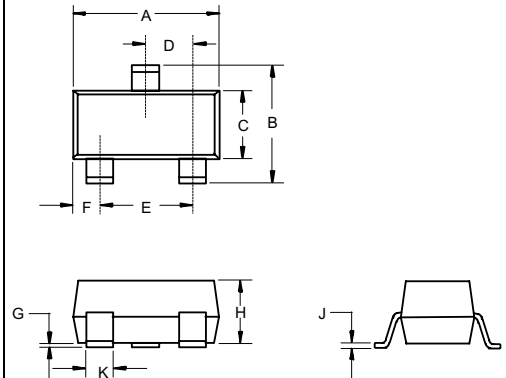
- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C

Rating	Symbol	Value	Unit
Reverse Voltage	V_R	30	V
Forward Power Dissipation @ $T_A = 25^\circ\text{C}$ Derate above 25°C	P_{TOT}	200 2.0	mW mW/°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

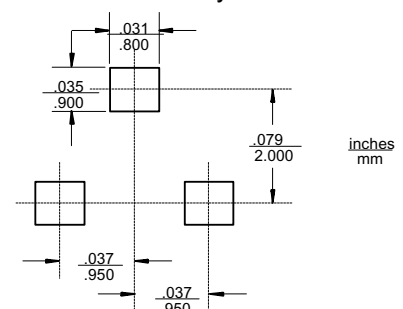
Characteristic	Symbol	Min	Typ	Max	Test Cond.
Reverse Breakdown Voltage	$V_{(BR)R}$	30V			$I_R = 10\mu\text{A}$ $T_A = 25^\circ\text{C}$
Forward Voltage	V_F		0.52V 0.38V	0.60V 0.45V	$I_{FM} = 10\text{mA};$ $I_{FM} = 1.0\text{mA};$
Reverse Leakage	I_R		13nA	200nA	$V_R = 25\text{Volts}$
Junction Capacitance	C_J		0.9pF	1.5pF	Measured at $f = 1.0\text{MHz},$ $V_R = 15\text{V}$

SOT-23



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.104	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

Suggested Solder Pad Layout



MMBD301

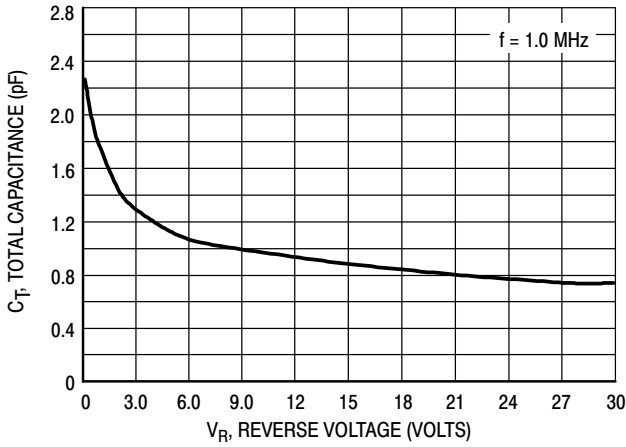


Figure 1. Total Capacitance

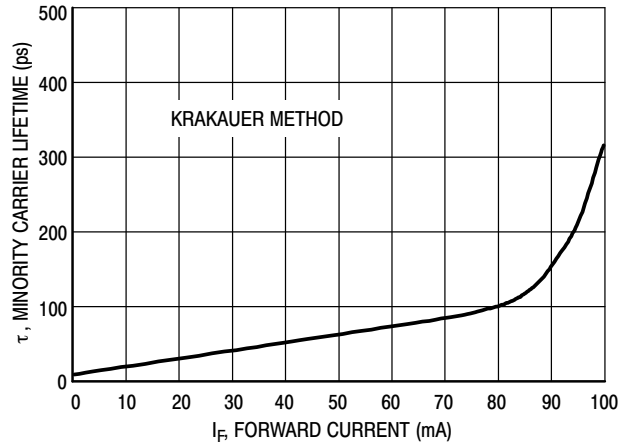


Figure 2. Minority Carrier Lifetime

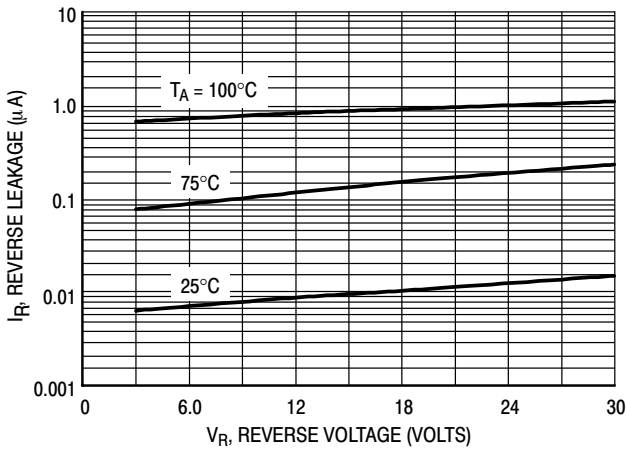


Figure 3. Reverse Leakage

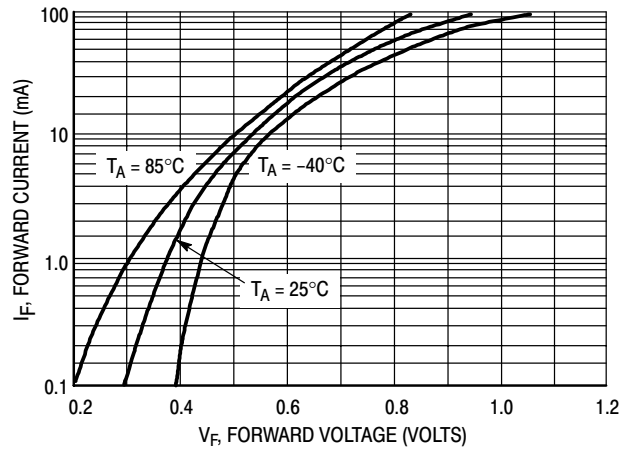


Figure 4. Forward Voltage

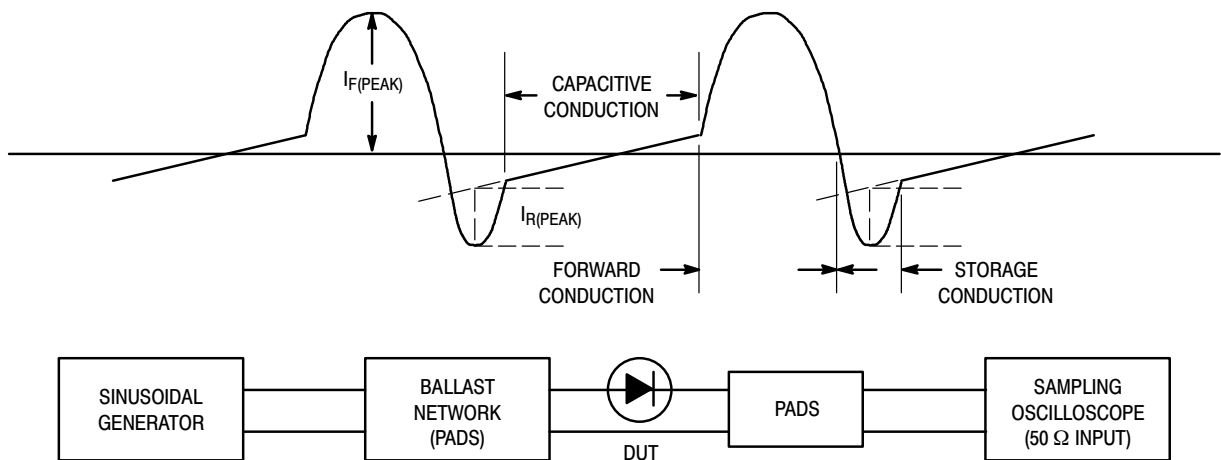


Figure 5. Krakauer Method of Measuring Lifetime



Micro Commercial Components

Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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