



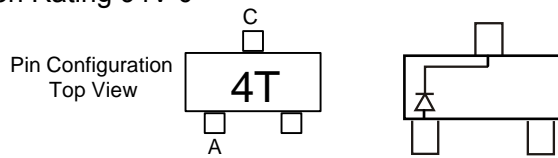
Micro Commercial Components

Micro Commercial Components
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MMBD301

Features

- High Efficiency UHF and VHF Detector Applications.
- Low Capacitance and Low Reverse Leakage
- Extremely Low Minority Carrier Lifetime – 15ps (Typ)
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0



30 Volts Schottky Barrier Diodes

Maximum Ratings

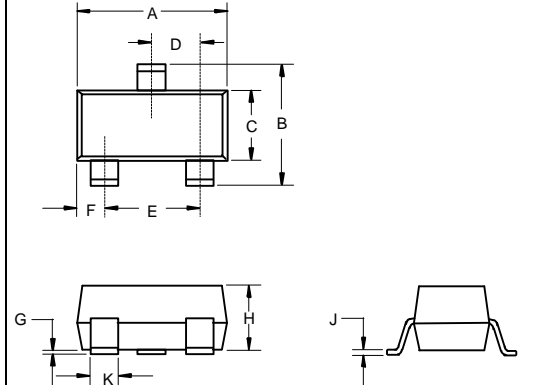
- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C

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

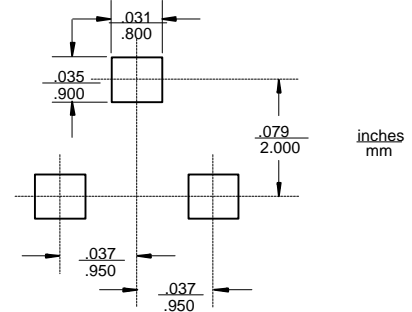
Characteristic	Symbol	Min	Typ	Max	Test Cond.
Reverse Breakdown Voltage	$V_{(BR)R}$	30V			$I_R = 10\mu\text{A}$ $T_A = 25^\circ\text{C}$
Forward Voltage	V_F		0.52V 0.38V	0.60V 0.45V	$I_{FM} = 10\text{mA};$ $I_{FM} = 1.0\text{mA};$
Reverse Leakage	I_R		13nA	200nA	$V_R = 25\text{Volts}$
Junction Capacitance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

SOT-23



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.110	.120	2.80	3.04	
B	.083	.098	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



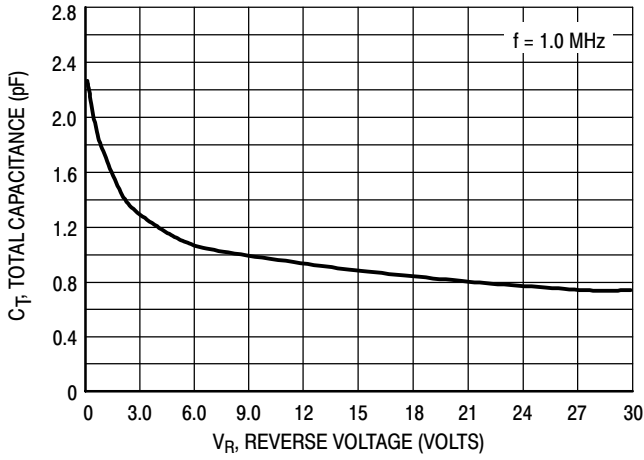


Figure 1. Total Capacitance

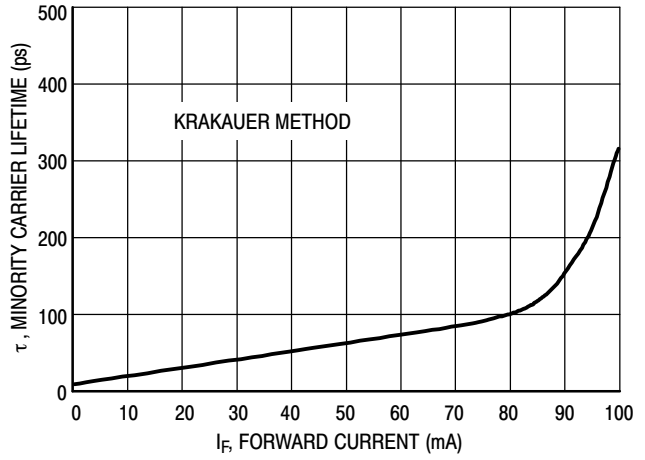


Figure 2. Minority Carrier Lifetime

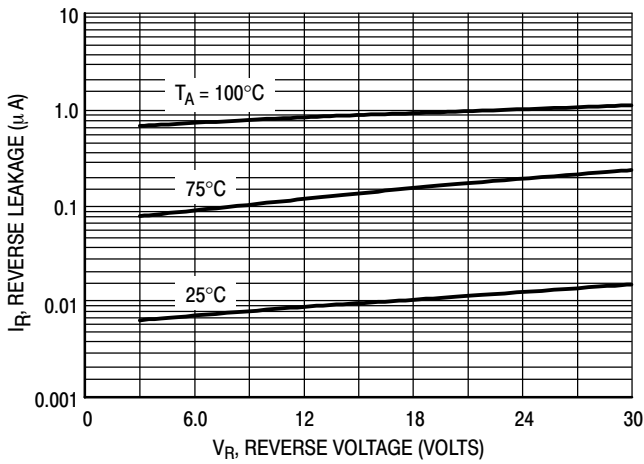


Figure 3. Reverse Leakage

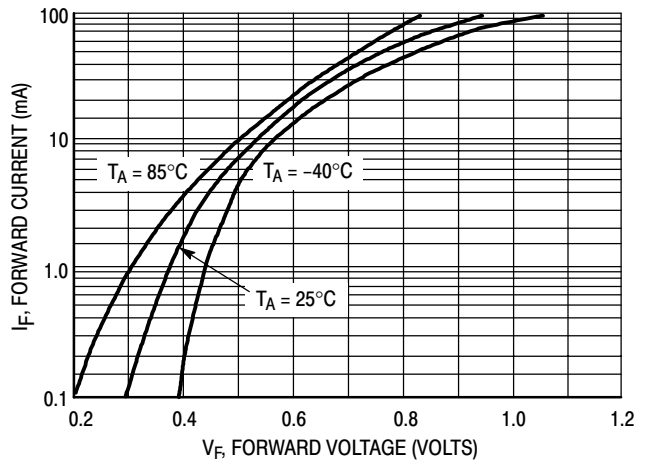


Figure 4. Forward Voltage

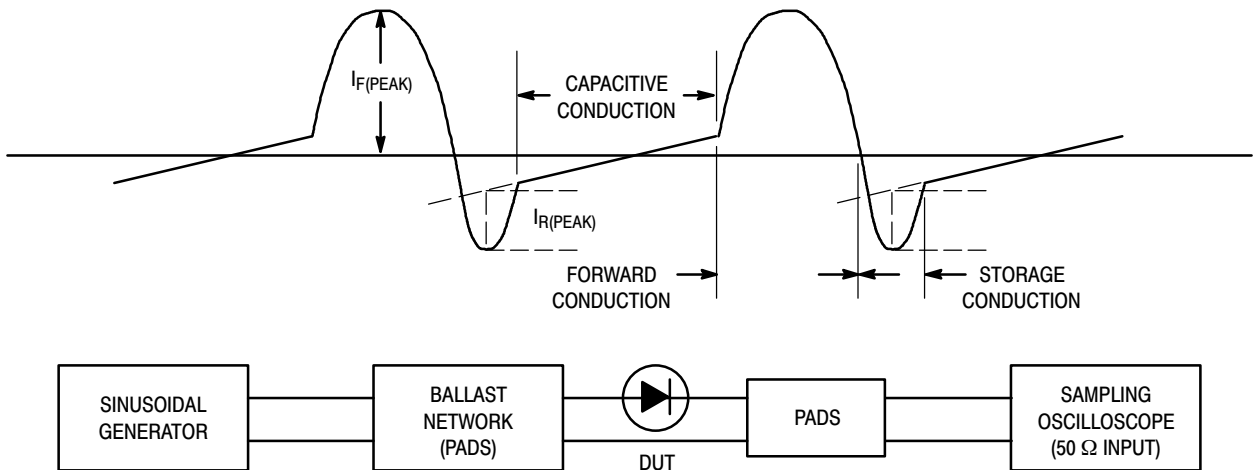


Figure 5. Krakauer Method of Measuring Lifetime



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