

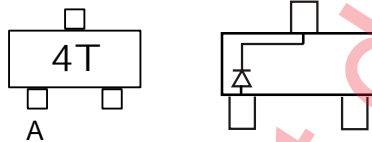


MMBD301

Pin Configuration
 Top View

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



30 Volts Schottky Barrier Diodes

Maximum Ratings

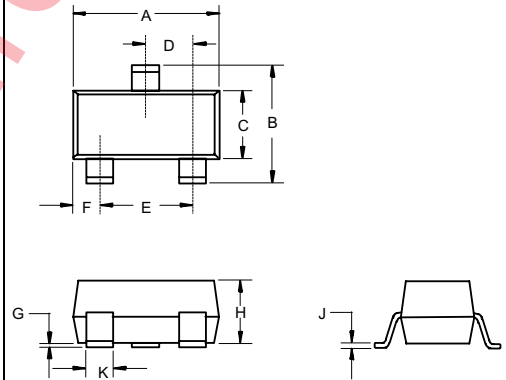
- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C

| 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

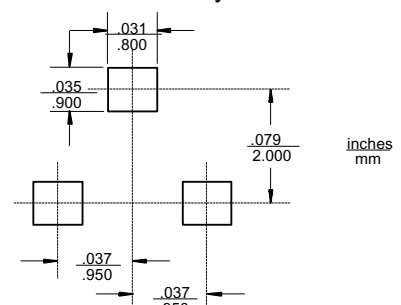
| Characteristic | Symbol | Min | Typ | Max | Test Cond. |
|---------------------------|-------------|-----|----------------|----------------|--|
| Reverse Breakdown Voltage | $V_{(BR)R}$ | 30V | | | $I_R = 10\mu\text{A}$ $T_A = 25^\circ\text{C}$ |
| Forward Voltage | V_F | | 0.52V 0.38V | 0.60V 0.45V | $I_{FM} = 10\text{mA};$ $I_{FM} = 1.0\text{mA};$ |
| 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 | 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

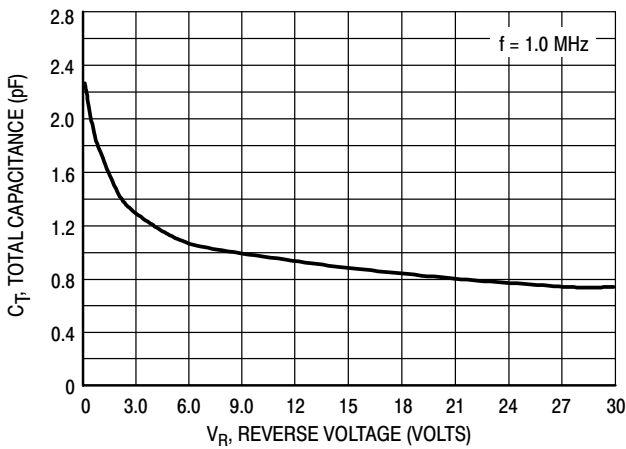


Figure 1. Total Capacitance

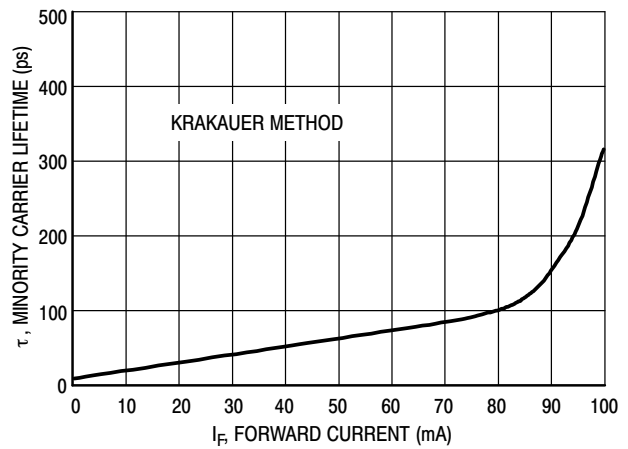


Figure 2. Minority Carrier Lifetime

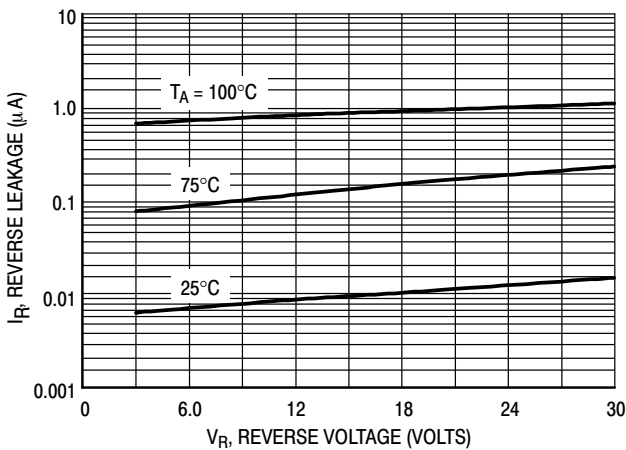


Figure 3. Reverse Leakage

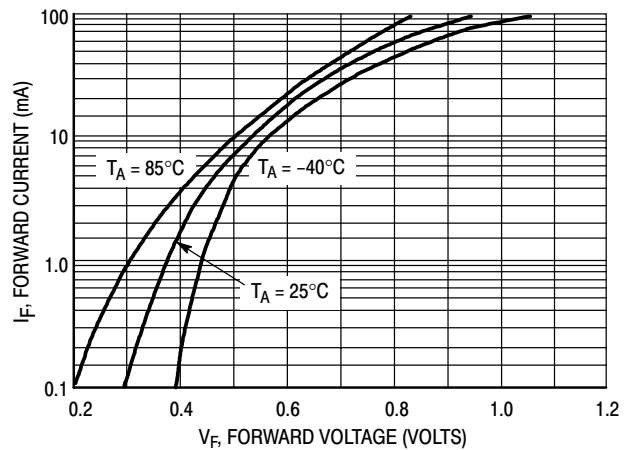


Figure 4. Forward Voltage

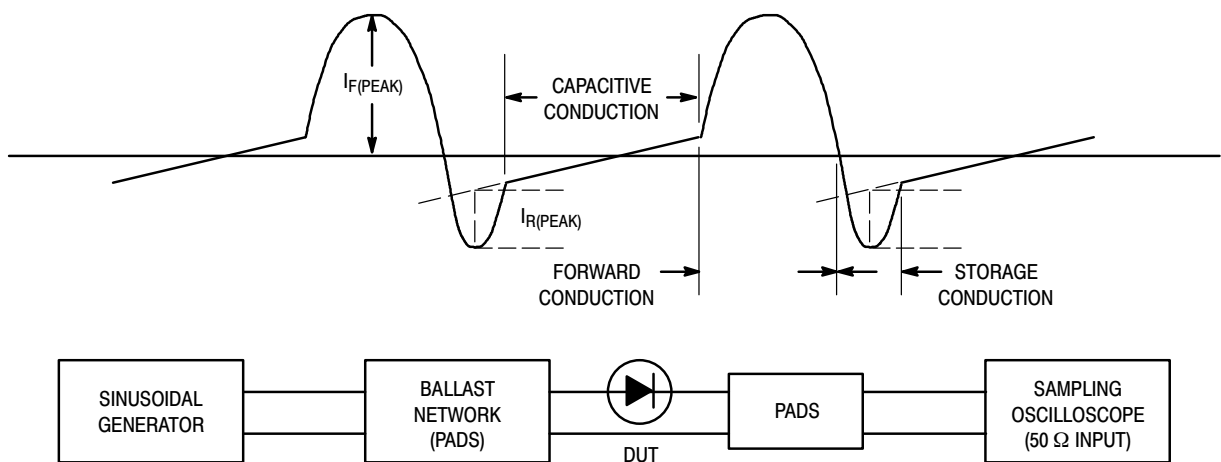


Figure 5. Krakauer Method of Measuring Lifetime



Micro Commercial Components

Ordering Information :

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

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