



**THE DATASHEET OF
MMBD301-TP**



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. "Green" Device (Note 1)

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 500°C/W Junction to Ambient

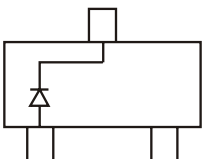
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum DC Blocking Voltage
MMBD301	4T	30V	30V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Reverse Breakdown Voltage	$V_{(BR)R}$	30V(Min)	$I_R=10\mu A$
Power Dissipation	P_{TOT}	200mW 2.0mW/°C	$T_A = 25^\circ C$
Forward Voltage	V_F	0.52V(Typ) 0.60V(Max) 0.38V(Typ) 0.45V(Max)	$I_{FM}=10mA;$ $I_{FM}=1.0mA;$
Reverse Leakage	I_R	13nA(Typ) 200nA(Max)	$V_R = 25V$
Junction Capacitance	C_J	0.9pF(Typ) 1.5pF(Max)	Measured at $f=1.0MHz,$ $V_R=15V$

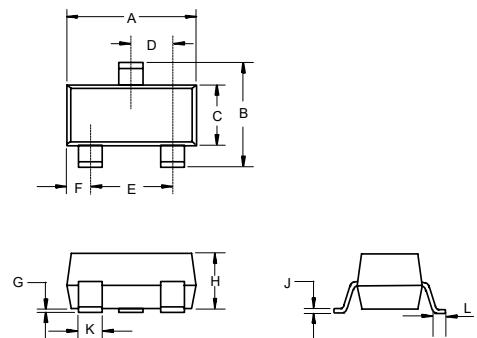
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Internal Structure:



**30 Volts
Schottky
Barrier Diodes**

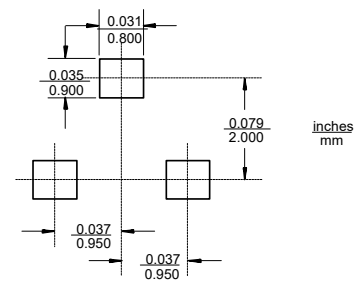
SOT-23



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.110	0.120	2.80	3.04	
B	0.083	0.104	2.10	2.64	
C	0.047	0.055	1.20	1.40	
D	0.034	0.041	0.85	1.05	
E	0.067	0.083	1.70	2.10	
F	0.018	0.024	0.45	0.60	
G	0.0004	0.006	0.01	0.15	
H	0.035	0.043	0.90	1.10	
J	0.003	0.007	0.08	0.18	
K	0.012	0.020	0.30	0.51	
L	0.007	0.020	0.20	0.50	

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Forward Characteristics

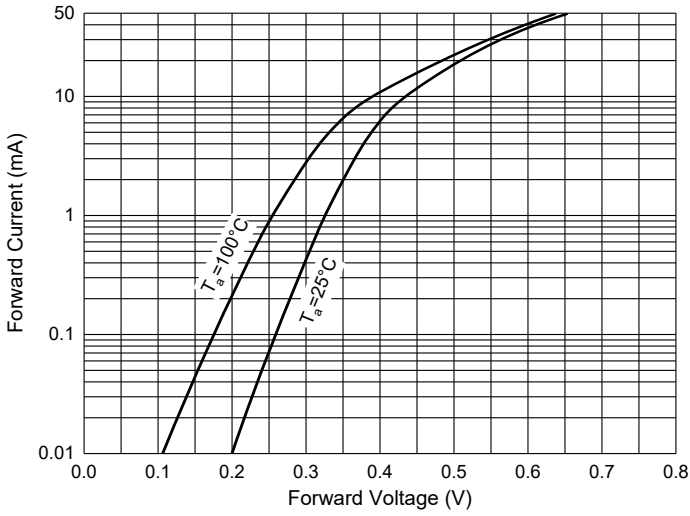


Fig. 2 - Reverse Characteristics

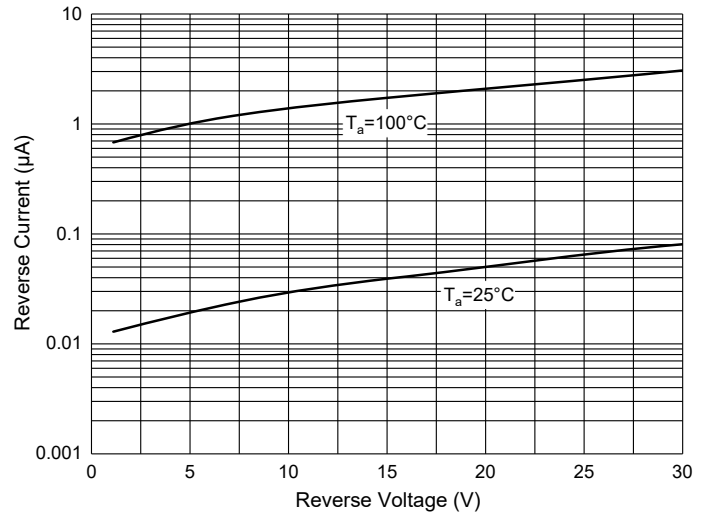


Fig. 3 - Capacitance Characteristics

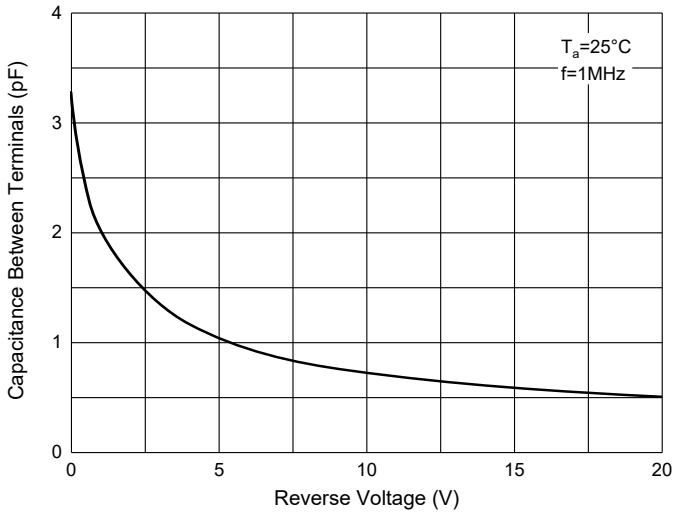
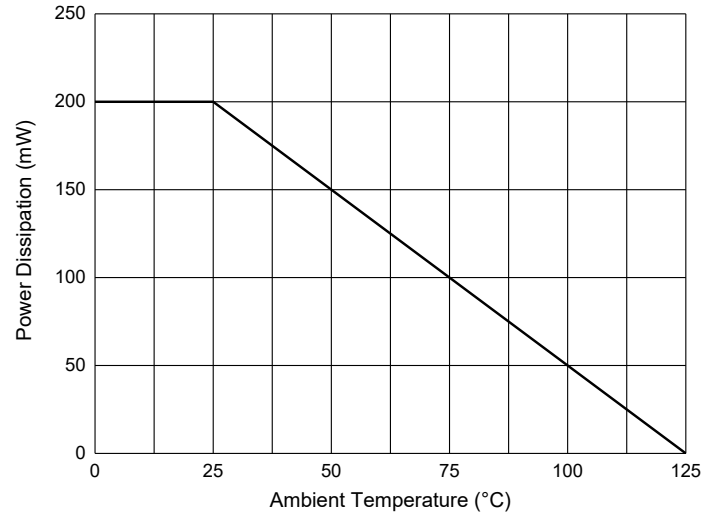


Fig. 4 - Power Derating Curve



Ordering Information

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

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