

MMBD7000

SURFACE MOUNT SWITCHING DIODE

VOLTAGE 100 Volts **POWER** 225 mWatts

FEATURES

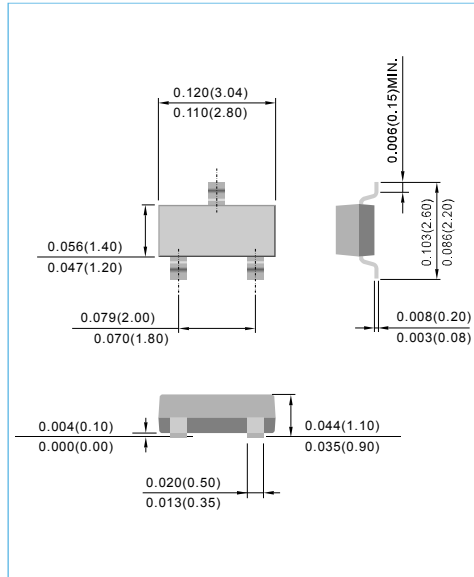
- Very fast reverse recovery ($t_{rr} < 2.0$ ns typical)
- Isolated, series-connected diode pair
- Surface mount package ideally suited for automatic insertion
- Lead free in comply with EU RoHS 2002/95/EC directives.

Ç Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: SOT-23, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0003 ounces, 0.0084 grams
- Marking: T3

SOT-23 Unit : inch(mm)



ABSOLUTE RATINGS

PARAMETER	Symbol	Value	Units
Maximum Reverse Voltage	V_R	100	V
Peak Reverse Voltage	V_{RRM}	100	V
Continuous Forward Current	I_F	0.2	A
Non-repetitive Peak Forward Surge Current at $t=1.0 \mu s$	I_{FSM}	4.0	A

THERMAL CHARACTERISTICS

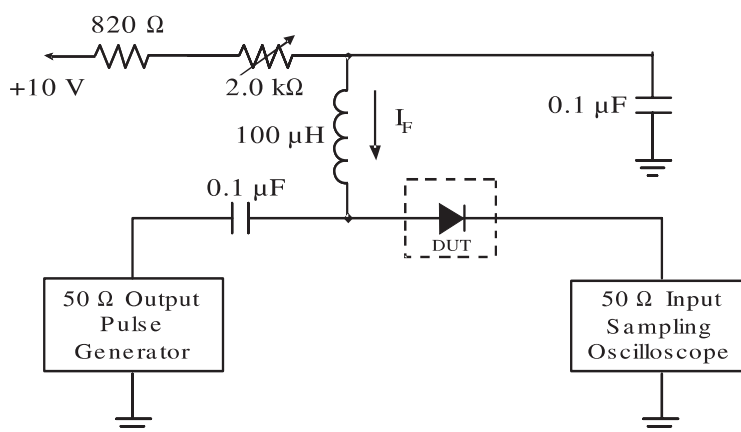
PARAMETER	Symbol	Value	Units
Power Dissipation (Note 1)	P_{TOT}	225	mW
Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	556	°C/W
Junction Temperature	T_J	-55 to 150	°C
Storage Temperature	T_{STG}	-55 to 150	°C

Note 1. FR-4 Board = 70 x 60 x 1mm.

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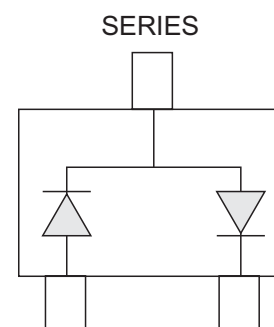
ELECTRICAL CHARACTERISTICS

PARAMETER	Symbol	Test Condition	MIN.	TYP.	MAX.	Units
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=100\text{ }\mu\text{A}$	100	--	--	V
Reverse Current	I_r	$V_R=50\text{ V}$ $V_R=100\text{ V}$ $V_R=50\text{ V}, T_J=125^\circ\text{C}$	--	--	1.0 3.0 100	μA
Forward Voltage	V_F	$I_F=1.0\text{mA}$ $I_F=10\text{mA}$ $I_F=100\text{mA}$	--	--	0.70 0.82 1.10	V
Total Capacitance	C_J	$V_R=0\text{V}, f=1.0\text{MHz}$	--	--	2.0	pF
Reverse Recovery Time (Figure 1)	t_{rr}	$I_F=I_R=10\text{mA}, R_L=100\Omega$	--	--	4.0	ns



- Notes: 1. A 2.0k Ω variable resistor adjusted for a forward current (I_F) to 10mA
2. Input pulse is adjusted to $I_{R(\text{peak})}$ is equal to 10mA

Figure 1. REVERSE RECOVERY TIME EQUIVALENT TEST CIRCUIT



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ELECTRICAL CHARACTERISTICS CURVE

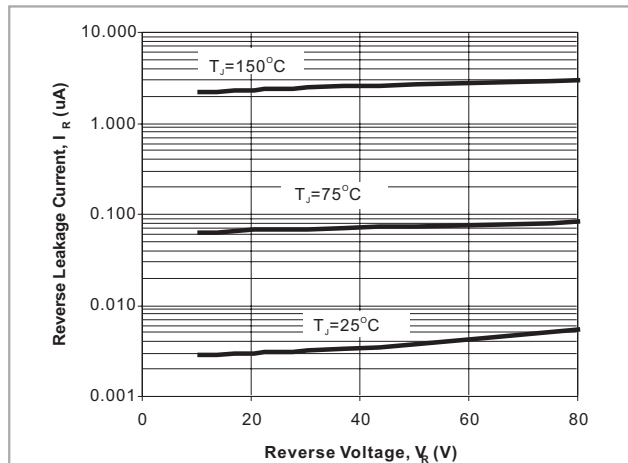


Fig. 2. Reverse Current vs. Reverse Voltage

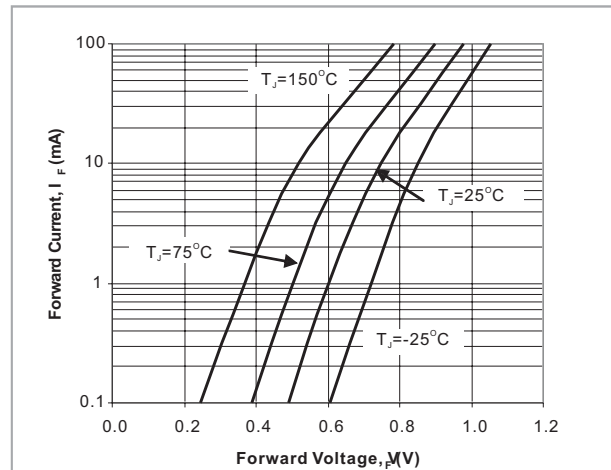


Fig. 3. Forward Current vs. Forward

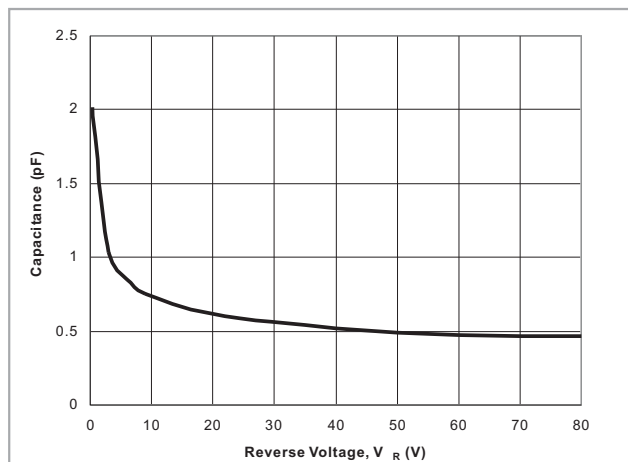


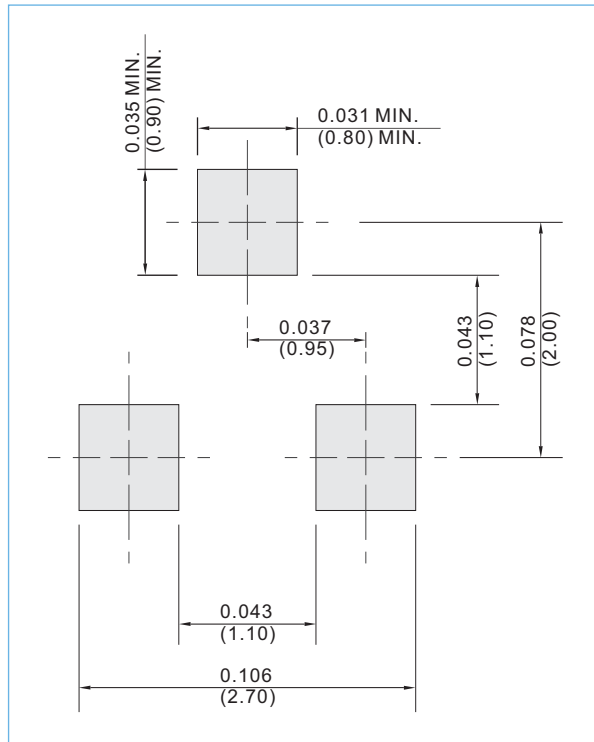
Fig. 4. Capacitance vs. Reverse Voltage

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MOUNTING PAD LAYOUT

SOT-23

Unit : inch(mm)



ORDER INFORMATION

- Packing information
 - T/R - 12K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel

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Part No_packing code_Version

MMBD7000_R1_00001

MMBD7000_R2_00001

For example :

RB500V-40 **R2** **00001**

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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