



MMBD7000W

SURFACE MOUNT SWITCHING DIODE

SOT-323

Unit: inch (mm)

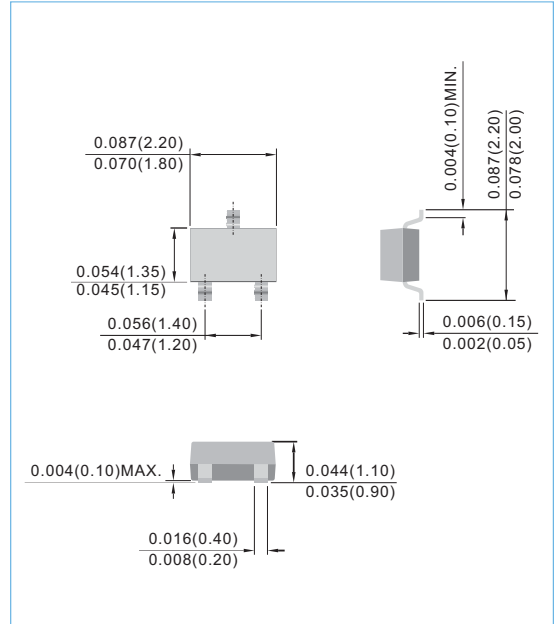
VOLTAGE 100 Volts **POWER** 200 mWatts

FEATURES

- Very fast reverse recovery ($t_{rr} < 2.0$ ns typical)
- Isolated, series-connected diode pair
- Surface mount package ideally suited for automatic insertion
- ŠæÁ^Á Á [] Á @ÓWÚ[PÚÁEECDÍ DÓÁa^&á^•ZÁ
^ÁÓ!^^} Á []á * Á [] [^ } áÁæ Á^!ÁÓÔÍ FG JÁÚáZÁP a[* ^} ÁÓ^^D

MECHANICAL DATA

- Case: SOT-323, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0048 gram
- Marking: T3



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}	200	mW
Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	556	$^{\circ}C/W$
Junction Temperature	T_J	-55 to 150	$^{\circ}C$
Storage Temperature	T_{STG}	-55 to 150	$^{\circ}C$

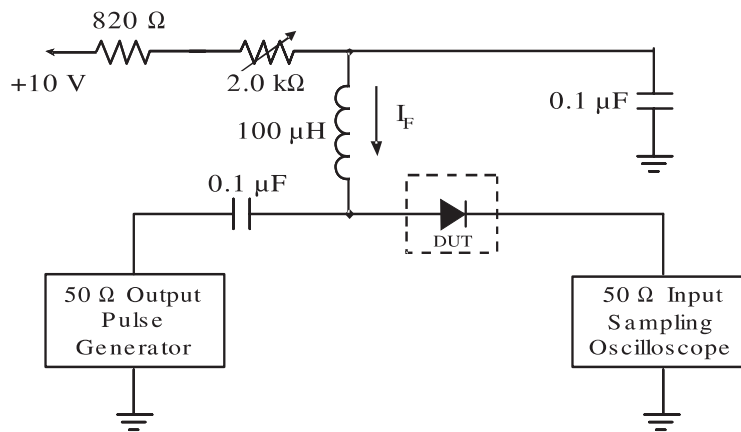
Note 1. FR-4 Board = 70 x 60 x 1mm.



MMBD7000W

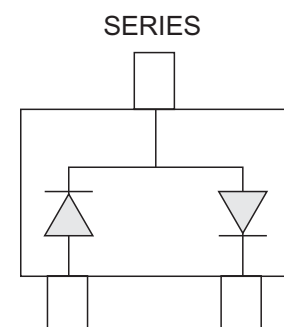
ELECTRICAL CHARACTERISTICS

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



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

Figure 1. REVERSE RECOVERY TIME EQUIVALENT TEST CIRCUIT





MMBD7000W

ELECTRICAL CHARACTERISTICS CURVE

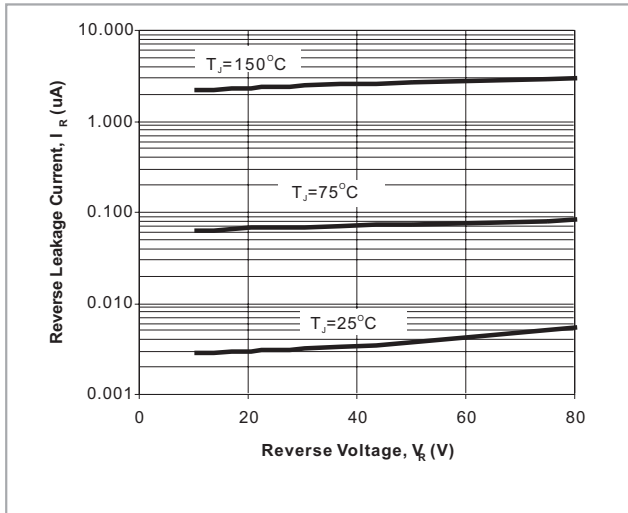


Fig. 2. Reverse Current vs. Reverse Voltage

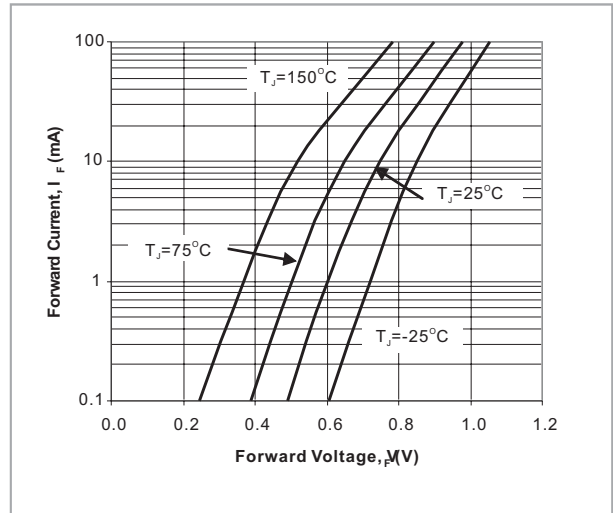


Fig. 3. Forward Current vs. Forward

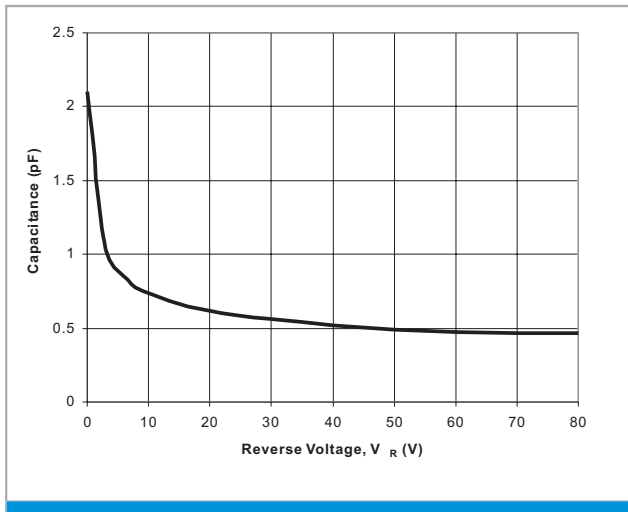
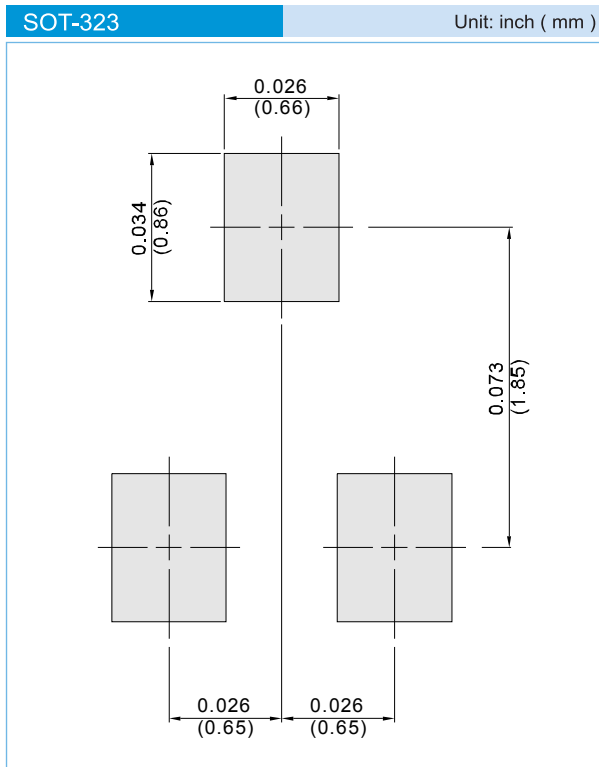


Fig. 4. Capacitance vs. Reverse Voltage



MMBD7000W

MOUNTING PAD LAYOUT



ORDER INFORMATION

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



MMBD7000W

Part No_packing code_Version

MMBD7000W_R1_00001

MMBD7000W_R2_00001

For example :

RB500V-40_R2_00001



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			



MMBD7000W

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.