



MMBD7000W

SURFACE MOUNT SWITCHING DIODE

Voltage Range 100 Volts
Power 200mWatts

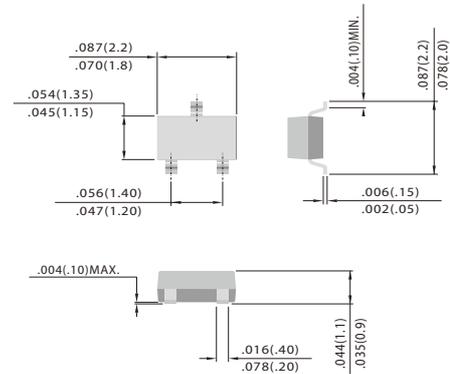
Features

- * Very fast reverse recovery ($T_{rr} < 2.0$ ns typical)
- * Isolated, series-connected diode pair
- * Surface mount package ideally suited for automatic insertion
- * Both normal and Pb free product are available :
- * Normal : 80~95% Sn, 5~20% Pb
- Pb free: 99% Sn above can meet Rohs environment substance directive request

Mechanical Data

Case: SOT-323, Plastic
 Terminals: Solderable per MIL-STD-202G, Method 208
 Approx. Weight: 0.0048 gram
 Marking: T3

SOT-323



Dimensions in millimeters

Absolute Ratings

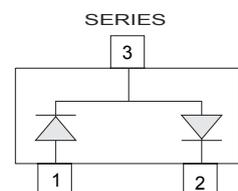
PARAMETER	SYMBOL	VALUE	UNIT
Maximum Reverse Voltage	V_R	100	V
Peak Reverse Voltage	V_{RRM}	100	V
Continuous Forward Current	I_F	0.2	A
Non-repetitive Peak Forward Surge Current at $t=1.0$ s	I_{FSM}	2.0	A

Thermal Characteristics

PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation ⁽¹⁾	P_{TOT}	200	mW
Thermal Resistance , Junction to Ambient ⁽¹⁾	$R_{\theta JA}$	556	°C/W
Junction Temperature	T_J	-50 to 150	°C
Storage Temperature	T_{STG}	-50 to 150	°C

NOTES:

1.FR-5 Board=1.0 x 0.75 x 0.062 in.





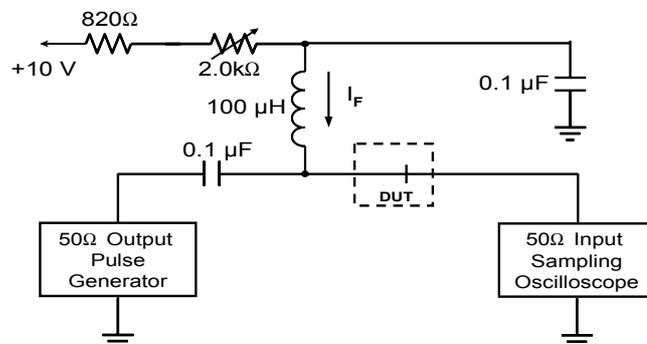
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Electrical Characteristics

PARAMETER	Symbol	Test Condition	MIN.	TYP.	MAX.	Units
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=100 \mu A$	100	--	--	V
Reverse Current	I_R	$V_R=30 V$ $V_R=40 V$ $V_R=50 V, T_J=125^\circ C$	--	--	1.0 3.0 100	μA
Forward Voltage	V_F	$I_F=1.0mA$ $I_F=10mA$ $I_F=100mA$	-	--	0.70 0.82 1.10	V
Total Capacitance	C_T	$V_R=0V, f=1.0MHz$	--	1.5	-	pF
Reverse Recovery Time (Figure 1)	T_{RR}	$I_F=I_R=10mA, R_I=100\Omega$	--	--	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 $I_{R(peak)}$ is equal to 10mA

Fig.1 Reverse Recovery Time Equivalent test Circuit



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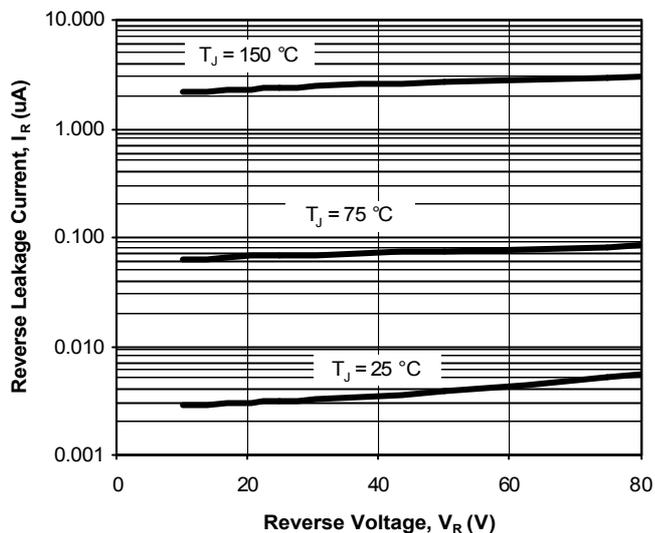


Fig.2 Reverse Current vs. Reverse Voltage

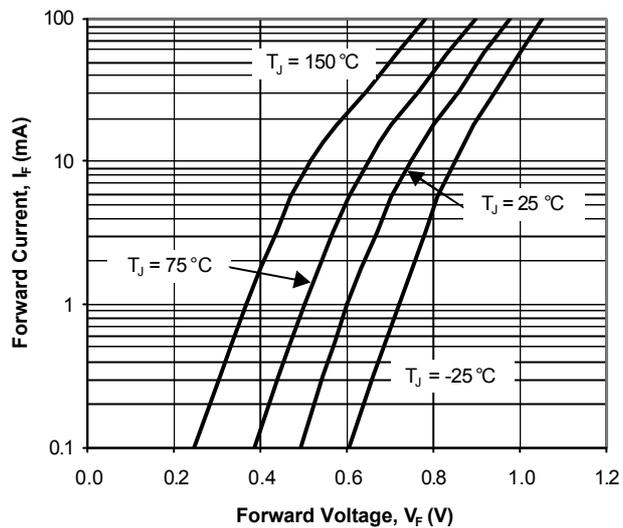


Fig.3 Forward Current vs. Forward Voltage

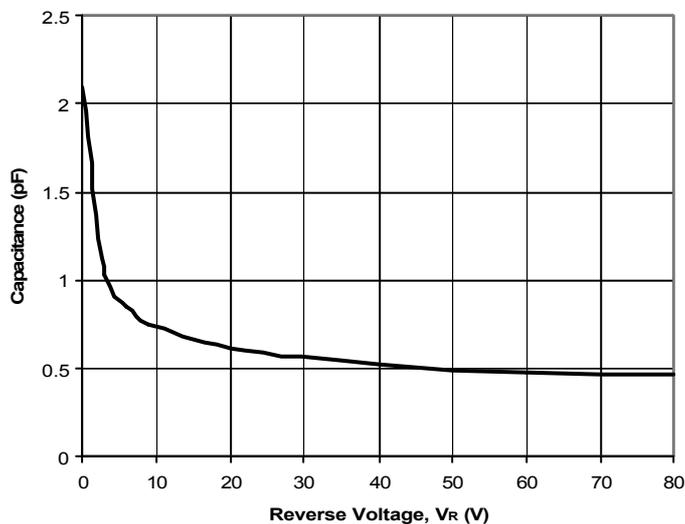


Fig.4 Capacitance vs. Reverse Voltage

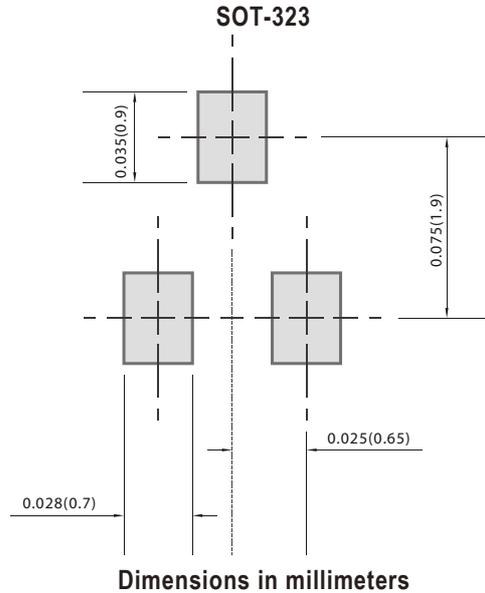


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Mounting Pad Layout



Order Information

Packing information

T/R - 12K per 13" plastic Reel

T/R - 3K per 7" plastic Reel

Legal Statement

* Important Notice

This information is intended to unambiguously characterize the product in order to facilitate the customer's evaluation of the device in the application. The information will help the customer's technical experts determine that the device is compatible and interchangeable with similar devices made by other vendors. The information in this data sheet is believed to be reliable and accurate. The specifications and information herein are subject to change without notice. New products and improvements in products and product characterization are constantly in process. Therefore, the factory should be consulted for the most recent information and for any special characteristics not described or specified.

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