



MMBD6100W

SURFACE MOUNT SWITCHING DIODES

Voltage Range 80 Volts
Power 200mWatts

Features

- * Dual, common cathode configuration
- * Very fast reverse recovery ($T_{rr} < 2.0ns$ typical)
- * Low capacitance ($< 2.5pF @ 0V$)
- * Surface mount package ideally suited for automatic insertion
- * Pb free product are available : 99% Sn above can meet RoHS environment substance directive request

Mechanical Data

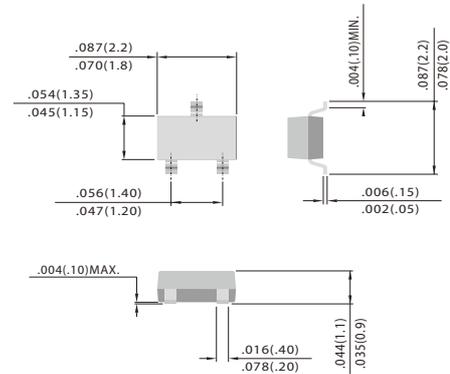
Case: SOT-323 plastic

Terminals : Solderable per MIL-STD-750, Method 2026

Approx weight : 0.008 gram

Marking : T4

SOT-323



Dimensions in millimeters

Absolute Ratings

PARAMETER	SYMBOL	VALUE	UNIT
Maximum Reverse Voltage	V_R	80	V
Peak Reverse Voltage	V_{RRM}	80	V
Continuous Forward Current	I_F	0.2	A
Non-repetitive Peak Forward Surge Current at $t=1.0 \mu s$	I_{FSM}	2.0	A

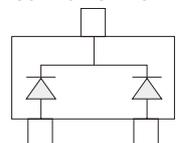
Thermal Characteristics

PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation ⁽¹⁾	P_{TOT}	200	mW
Thermal Resistance , Junction to Ambient ⁽¹⁾	$R_{\theta JA}$	625	$^{\circ}C/W$
Junction Temperature	T_J	-50 to 150	$^{\circ}C$
Storage Temperature	T_{STG}	-50 to 150	$^{\circ}C$

NOTES:

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

COMMON CATHODE





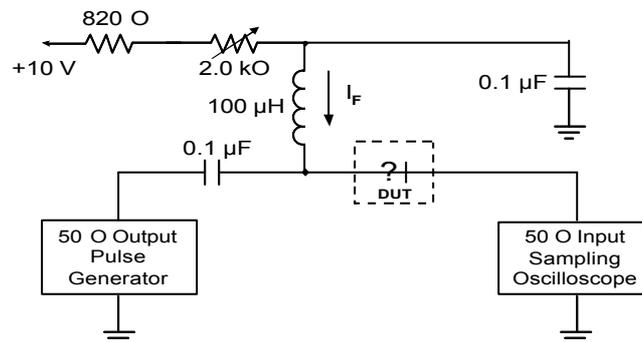
MMBD6100W

SURFACE MOUNT SWITCHING DIODES

Voltage Range 80 Volts
Power 200mWatts

Electrical Characteristics ($T_J=25^{\circ}\text{C}$, unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
Reverse Breakdown Voltage	V_{BR}	$I_R=100\mu\text{A}$	80	-	-	V
Reverse Current	I_R	$V_R=50\text{V}$	-	-	100	nA
Forward Voltage	V_F	$I_F=1\text{mA}$ $I_F=100\text{mA}$	0.55 0.85	-	0.7 1.1	V
Total Capacitance	C_T	$V_R=0\text{V}$, $f=1\text{MHz}$	-	-	2.5	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

Fig.1 Reverse Recovery Time Equivalent test Circuit



MMBD6100W

SURFACE MOUNT SWITCHING DIODES

Voltage Range 80 Volts

Power 200mWatts

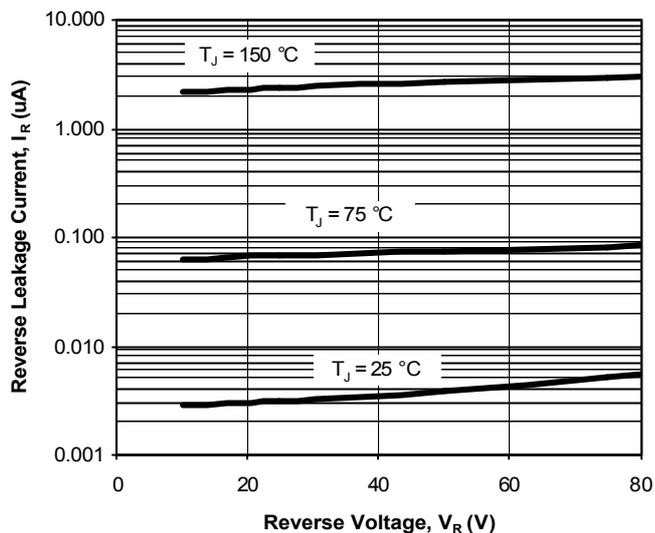


Fig.2 Reverse Current vs. Reverse Voltage

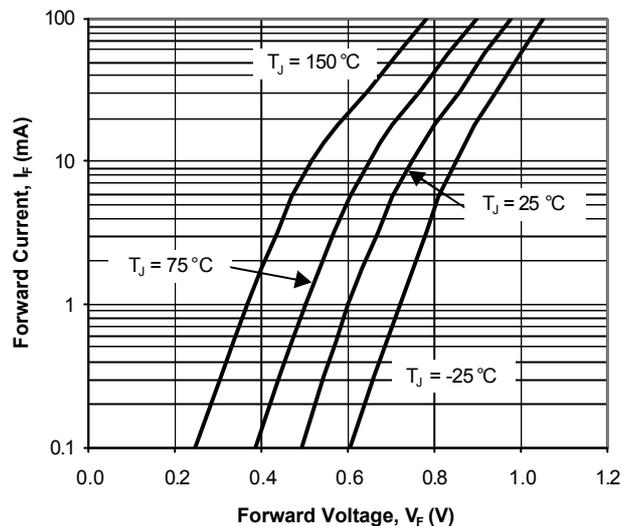


Fig.3 Forward Current vs. Forward Voltage

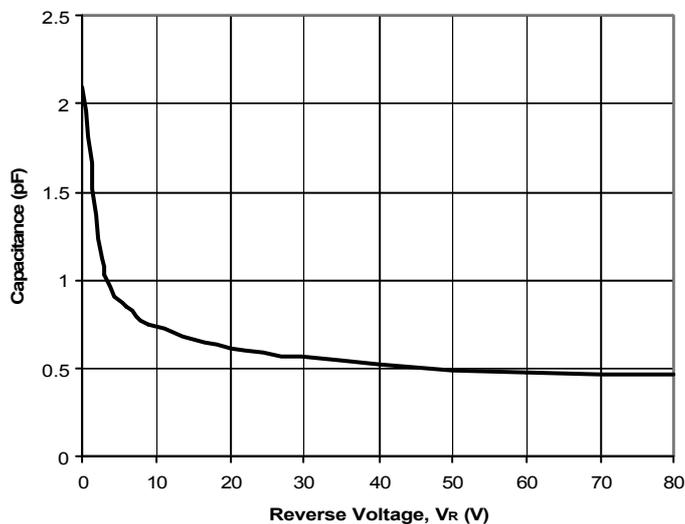


Fig.4 Capacitance vs. Reverse Voltage

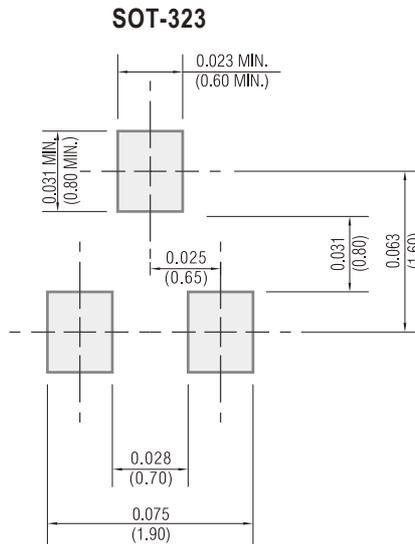


MMBD6100W

SURFACE MOUNT SWITCHING DIODES

Voltage Range 80 Volts
Power 200mWatts

Mounting Pad Layout



Dimensions in millimeters

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.

All rights reserved. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner.

The information presented in this document does not form part of any quotation or contract. The information presented is believed to be accurate and reliable, and may change without notice in advance. No liability will be accepted by the publisher for any consequence of use. Publication thereof does not convey nor imply any license under patent or other industrial or intellectual property rights.