

DATA SHEET

MMBD6050WS

SURFACE MOUNT SWITCHING DIODES

VOLTAGE	80 Volts	POWER	200mWatts
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SOD-323	Unit: inch (mm)
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FEATURES

- Very fast reverse recovery (trr < 2.0 ns 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

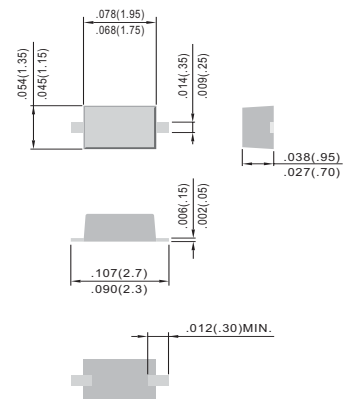
MECHANICAL DATA

Case: SOD-323 plastic

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

Approx weight : 0.008 gram

Marking : T2



ABSOLUTE RATINGS

PARAMETER	SYMBOL	VALUE	UNITS
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	UNITS
Power Dissipation ⁽¹⁾	P_{TOT}	200	mW
Thermal Resistance, Junction to Ambient ⁽¹⁾	$R_{\theta JA}$	625	°C/W
Junction Temperature	T_J	-55 to 150	°C
Storage Temperature	T_{STG}	-55 to 150	°C

NOTE:

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



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



ELECTRICAL CHARACTERISTIC CURVES

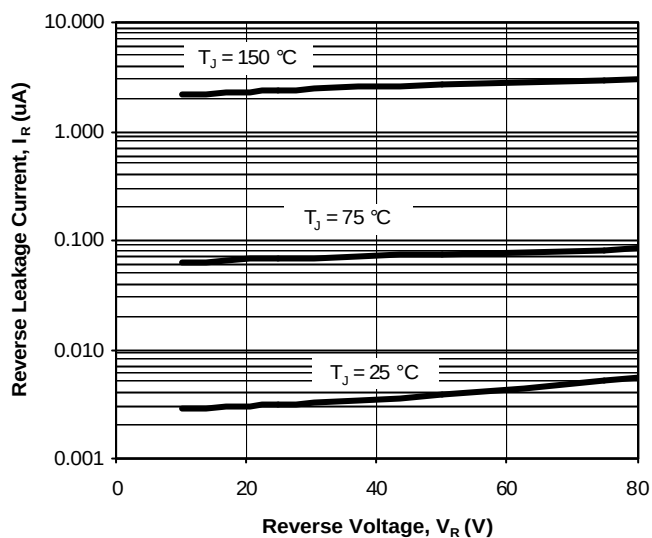


Fig. 2. Reverse Current vs. Reverse Voltage

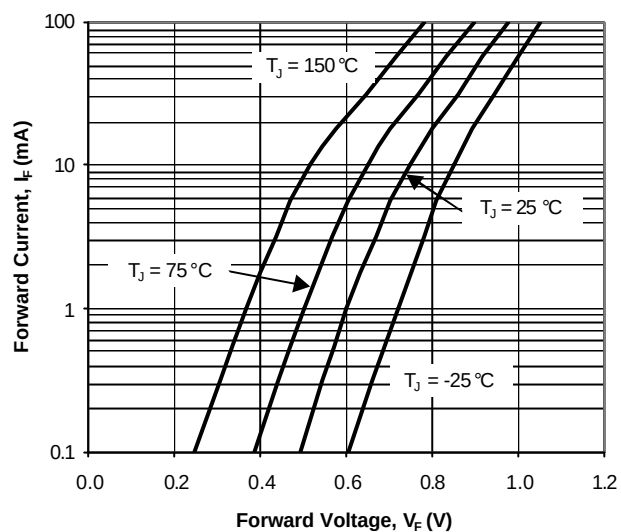


Fig. 3. Forward Current vs. Forward Voltage

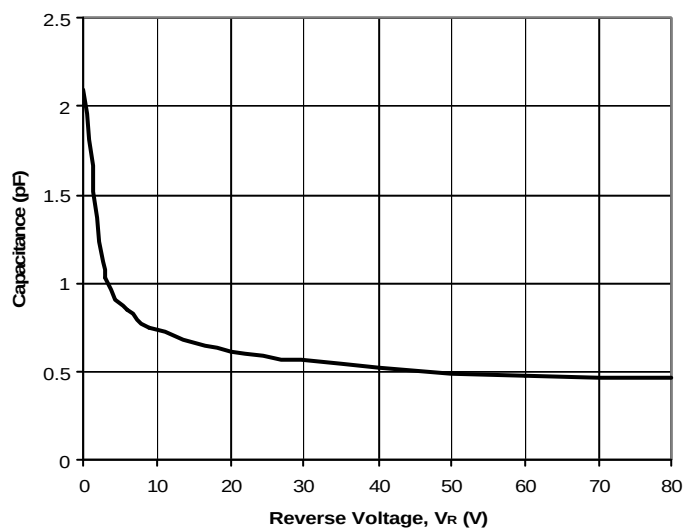
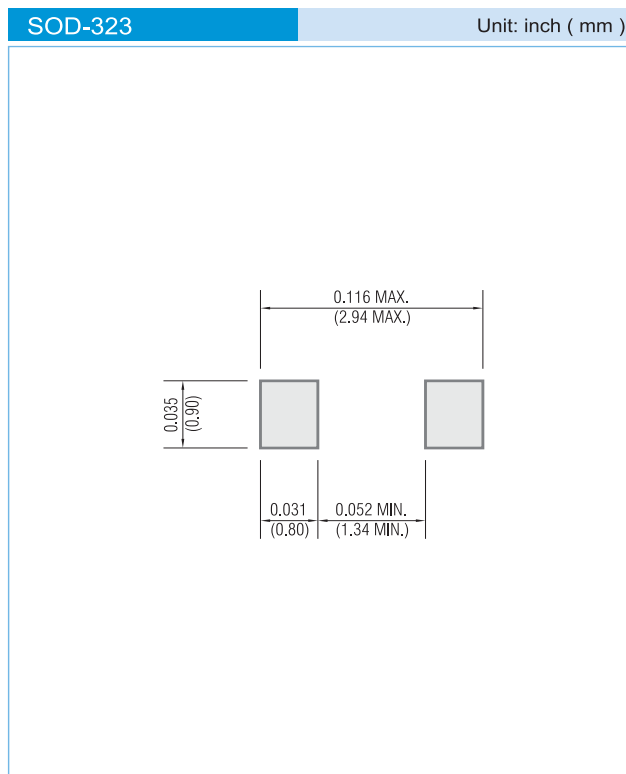


Fig. 4. Capacitance vs. Reverse Voltage

MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information

T/R - 12K per 13" plastic Reel

T/R - 5K 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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