

MMBD6050WS

SURFACE MOUNT SWITCHING DIODES

VOLTAGE

80 Volt

POWER

200mWatt

SOD-323

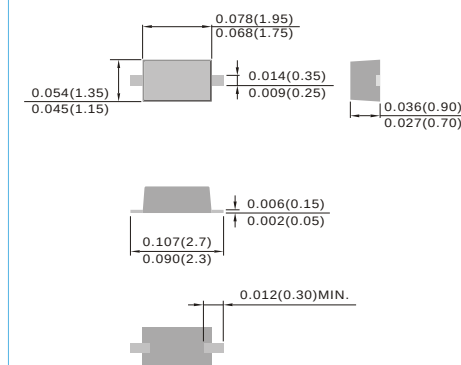
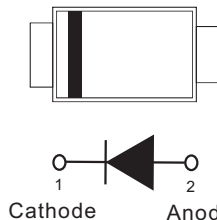
Unit : inch(mm)

FEATURES

- Very fast reverse recovery ($t_{rr} < 2.0$ ns typical)
- Low capacitance (< 2.5 pF @ 0V)
- Surface mount package ideally suited for automatic insertion.
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case : SOD-323 plastic
- Terminals : Solderable per MIL-STD-750,Method 2026
- Approx weight : 0.00014 ounces, 0.0041 grams
- Polarity : Color band cathode
- 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 $t=1\mu s$	I_{FSM}	4	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

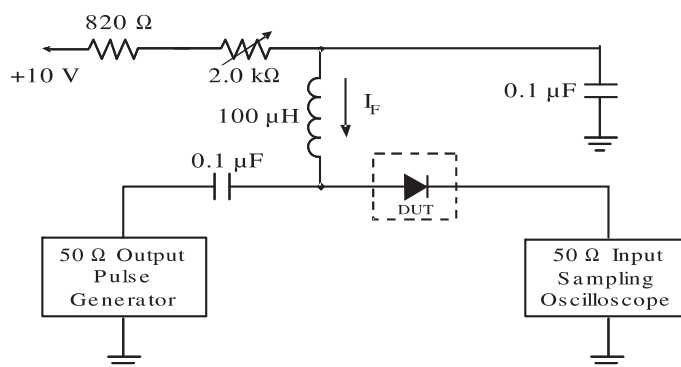
NOTE:

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

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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	ns



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

Figure 1. REVERSE RECOVERY TIME EQUIVALENT TEST CIRCUIT

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ELECTRICAL CHARACTERISTIC CURVES

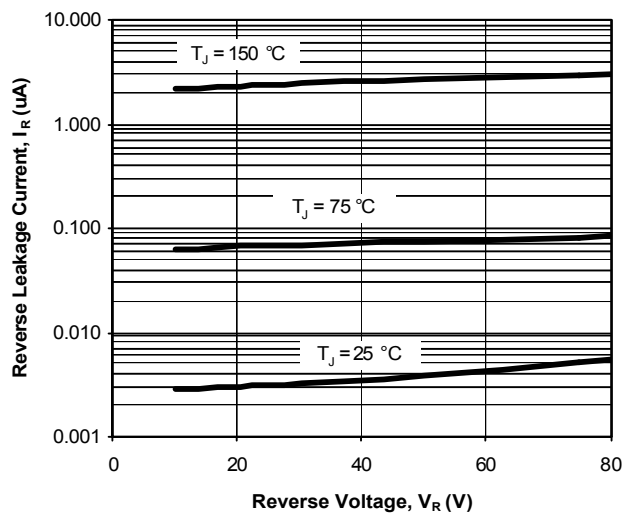


Fig. 2. Reverse Current vs. Reverse Voltage

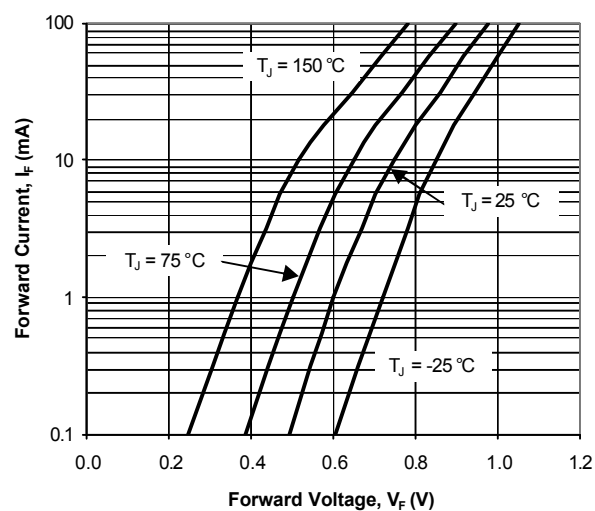


Fig. 3. Forward Current vs. Forward Voltage

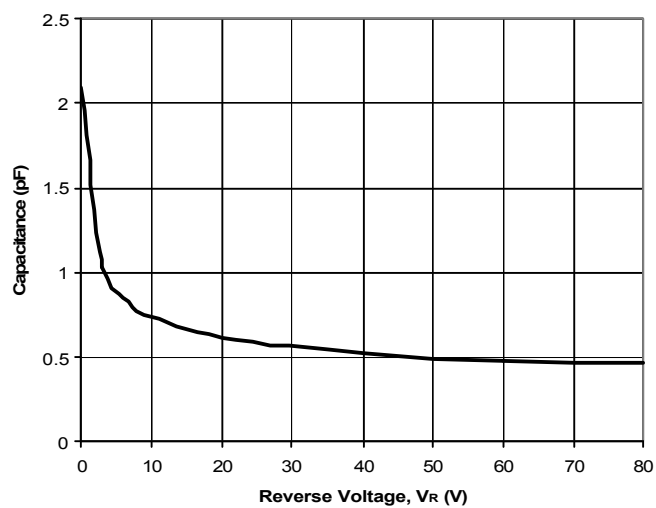


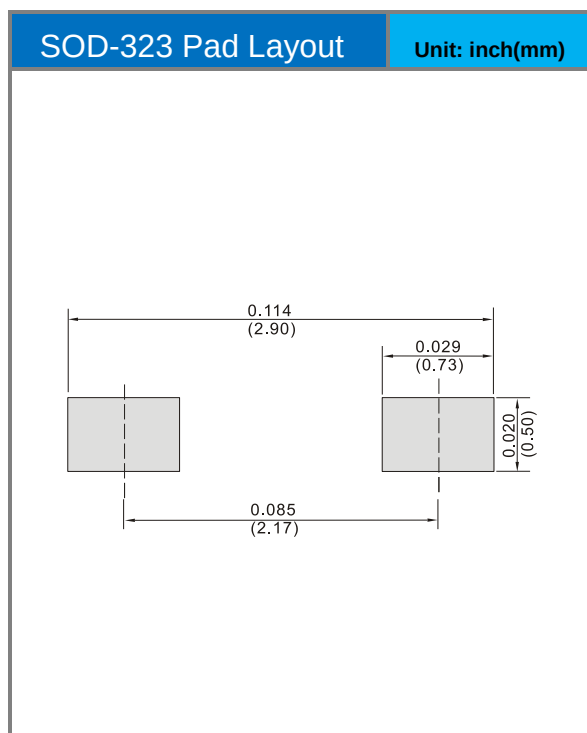
Fig. 4. Capacitance vs. Reverse Voltage

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
MMBD6050WS	SOD-323	5K pcs / 7" reel	T2
MMBD6050WS	SOD-323	12K pcs / 13" reel	T2

Mounting Pad Layout



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