



DATA SHEET

MMBD914WS

SURFACE MOUNT SWITCHING DIODES

VOLTAGE 100Volts

POWER 200mW

FEATURES

- Very fast reverse recovery ($T_{rr} < 2.0$ ns typical)
- Low capacitance (2pF @ 0V typical)
- Surface mount package ideally suited for automatic insertion
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: SOD-323 plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx weight: 4.1mg
- Marking: T1

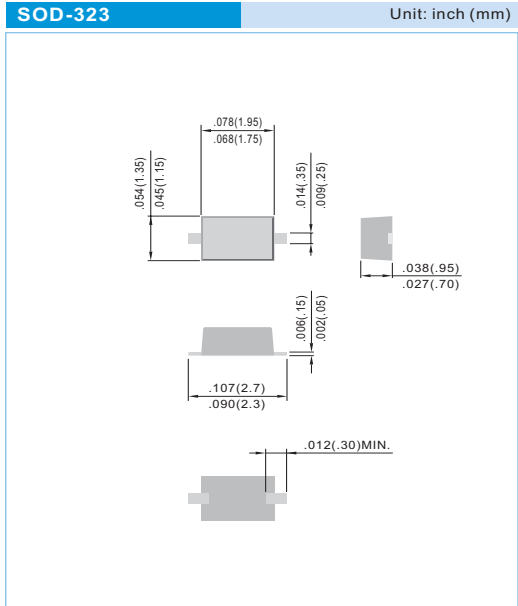
ABSOLUTE RATINGS

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 $t=1.0$ us	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_{JA}	625	/W
Junction Temperature	T_J	-55 to 150	
Storage Temperature	T_{STG}	-55 to 150	

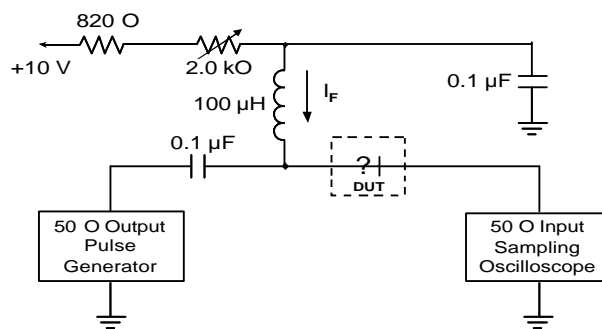
Note 1. FR-5 Board = 1.0 x 0.75 x 0.062 in.





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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=100\mu\text{A}$	100	-	-	V
Reverse Current	I_R	$V_R=20\text{V}$ $V_R=75\text{V}$	-	-	0.025 5.0	μA
Forward Voltage	V_F	$I_F=10\text{mA}$	-	-	1.0	V
Total Capacitance	C_T	$V_R=0\text{V}$, $f=1\text{MHz}$	-	-	4.0	pF
Reverse Recovery Time (Figure 1)	t_{rr}	$I_F=10\text{mA}$, $R_L=100\Omega$	-	-	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 $I_{R(\text{peak})}$ is equal to 10mA

Figure 1. REVERSE RECOVERY TIME EQUIVALENT TEST CIRCUIT



ELECTRICAL CHARACTERISTIC CURVES

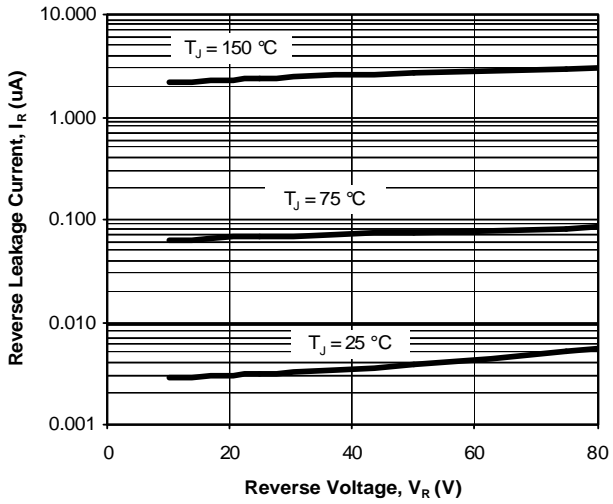


Fig. 2. Reverse Current vs. Reverse Voltage

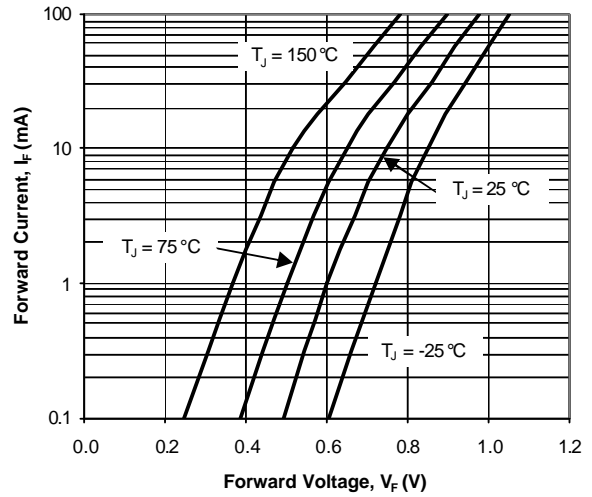


Fig. 3. Forward Current vs. Forward Voltage

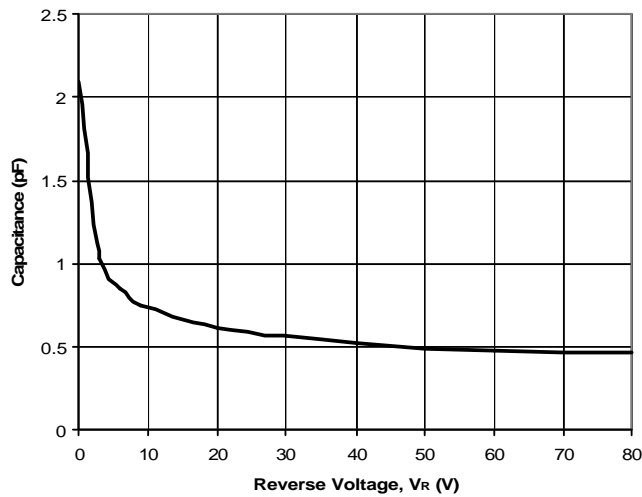
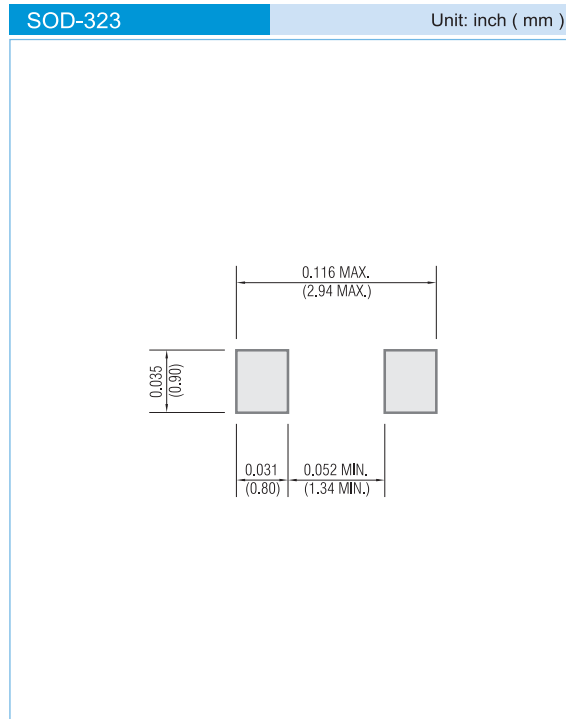


Fig. 4. Capacitance vs. Reverse Voltage



MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 12K per 13" plastic Reel
 - T/R - 5K per 7" plastic Reel

LEGAL STATEMENT

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