



MMBD6100W

SURFACE MOUNT SWITCHING DIODES

VOLTAGE 80 Volts **POWER** 200mWatts

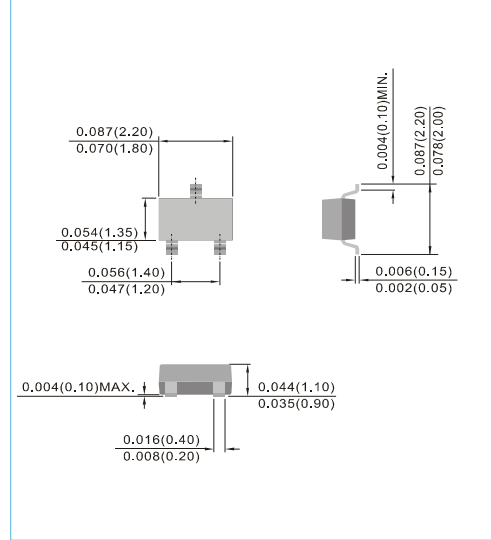
SOT-323 Unit : inch(mm)

FEATURES

- Dual, common cathode configuration
- Very fast reverse recovery ($T_{rr} < 2\text{ns}$ typical)
- Low capacitance ($< 2.5\text{pF}$ @ 0V)
- Surface mount package ideally suited for automatic insertion
- Lead free in comply with EU RoHS 2011/65/EU directives
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

Case: SOT-323 plastic
 Terminals : Solderable per MIL-STD-750, Method 2026
 Approx weight : 0.005 gram
 Marking : T4



ABSOLUTE RATINGS

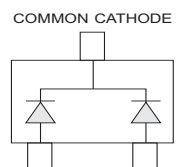
PARAMETER	SYMBOL	VALUE	UNITS
Maximum Reverse Voltage	V_R	80	V
Peak Reverse Voltage	V_{RRM}	80	V
Continuous Forward Current	I_F	0.2	A
Non-repetitive Peak Forward Surge Current at $t=1\mu\text{s}$	I_{FSM}	4	A

THERMAL CHARACTERISTICS

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

NOTE:

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

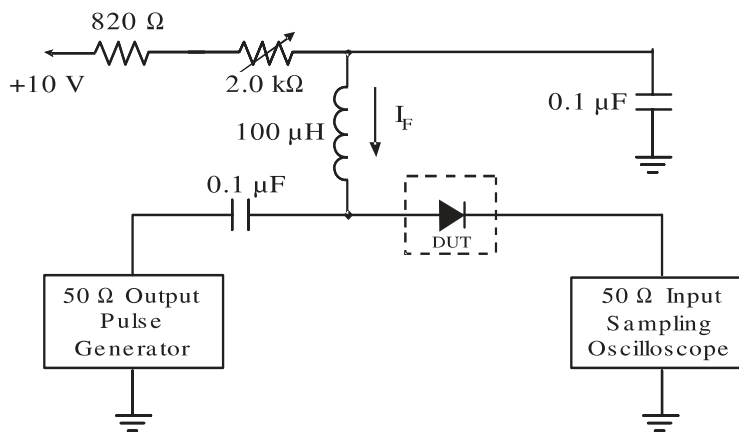




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ELECTRICAL CHARACTERISTICS ($T_j=25^{\circ}\text{C}$, unless otherwise noted)

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 (each diode)

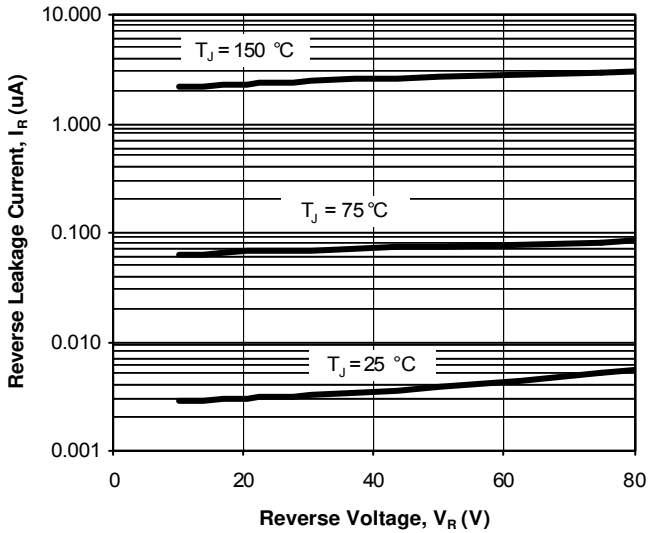


Fig. 2. Reverse Current vs. Reverse Voltage

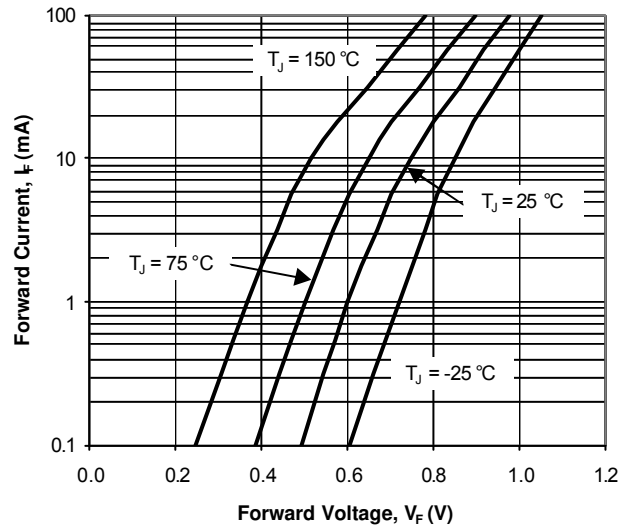


Fig. 3. Forward Current vs. Forward Voltage

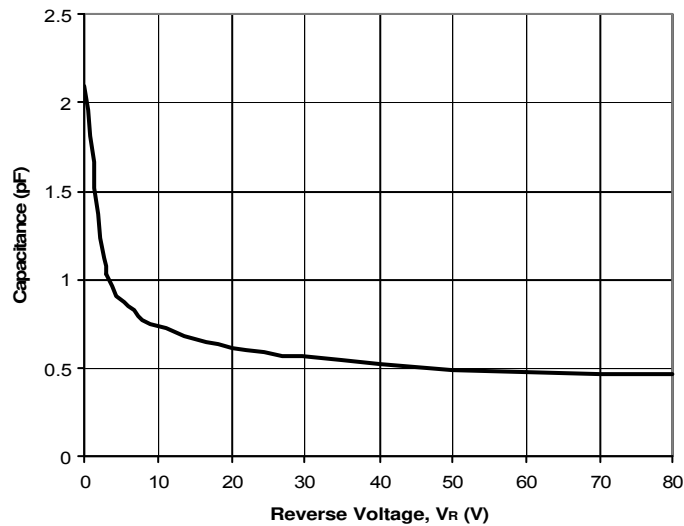


Fig. 4. Capacitance vs. Reverse Voltage

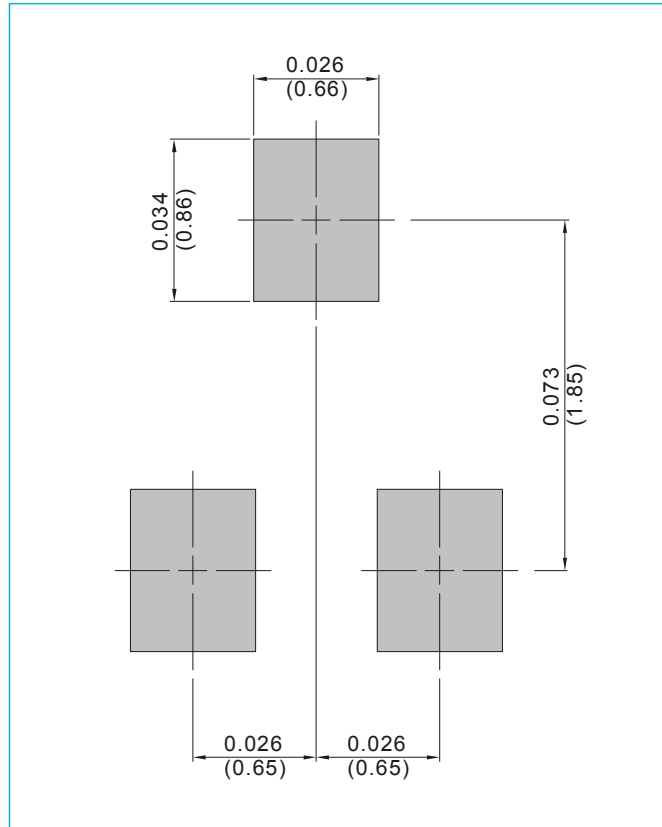


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MOUNTING PAD LAYOUT

SOT-323

Unit : inch(mm)



ORDER INFORMATION

- Packing information
T/R - 12K per 13" plastic Reel
T/R - 3K per 7" plastic Reel



MMBD6100W

Part No_packing code_Version

MMBD6100W_R1_00001

MMBD6100W_R2_00001

For example :

RB500V-40 **R2** **00001**



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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