



MMBD4150

SURFACE MOUNT SWITCHING DIODES

VOLTAGE 50 Volts **POWER** 300 mWatts

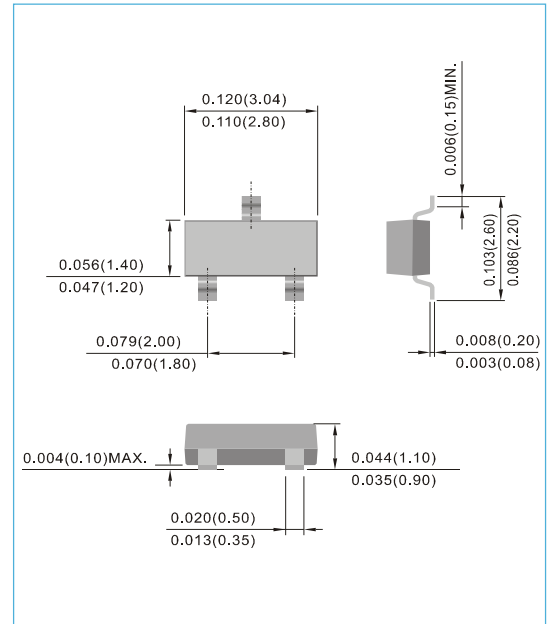
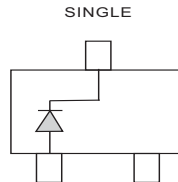
SOT-23 Unit : inch(mm)

FEATURES

- Very fast reverse recovery($T_{RR}<2.0\text{ns}$ typical)
- Low capacitance(4pF@0V typical)
- Surface Mount Package Ideally Suited for Automatic Insertion
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case : SOT-23 plastic case.
- Terminals : Solderable per MIL-STD-750,Method 2026
- Standard packaging : 8mm tape
- Approx.Weight : 0.0003 ounces, 0.0084grams
- Marking : A5



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)

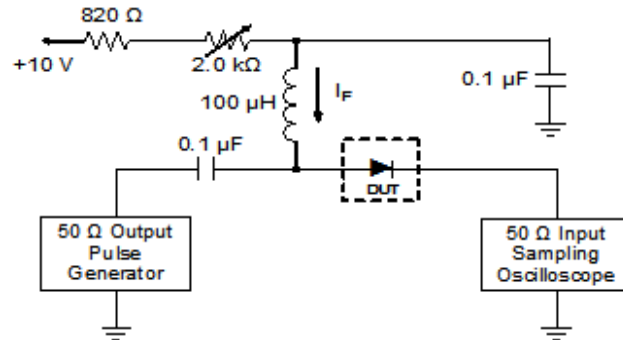
PARAMETER	SYMBOL	Value	UNITS
Maximum Reverse Voltage	V_R	50	V
Peak Reverse Voltage	V_{RRM}	50	V
Maximum Average Forward Current	$I_{F(AV)}$	250	mA
Non-repetitive Peak Forward Surge Current at $t=1.0\text{s}$	I_{FSM}	1	A
Power Dissipation (Note 1)	P_{TOT}	300	mW
Maximum Reverse Current at 50V	I_R	100	nA
Maximum Forward Voltage at $I_F=200\text{mA}$	V_F	1	V
Typical Junction Capacitance	C_J	1.9	pF
		$V_R=0\text{V}, f=1.0\text{MHz}$	
Maximum Reverse Recovery Time (Note 2) (Figure 1)	T_{RR}	4.0	ns
Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	417	$^\circ\text{C/W}$
Operating Junction Temperature and Storage Temperature Range	T_J, T_{STG}	-55 to 150	$^\circ\text{C}$

NOTE:

1. Mounted on P.C.B. with minimum pad layout.
2. From $I_F=I_R=10\text{mA}, R_L=100\Omega$.



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- NOTE:
1. A2.0k. variable resistor adjusted for forward current (I_F) to 10mA
 2. Input pulse is adjusted to $I_{R(peak)}$ is equal to 10mA

Figure 1. REVERSE RECOVERY TIME EQUIVALENT TEST CIRCUIT

ELECTRICAL CHARACTERISTIC CURVES

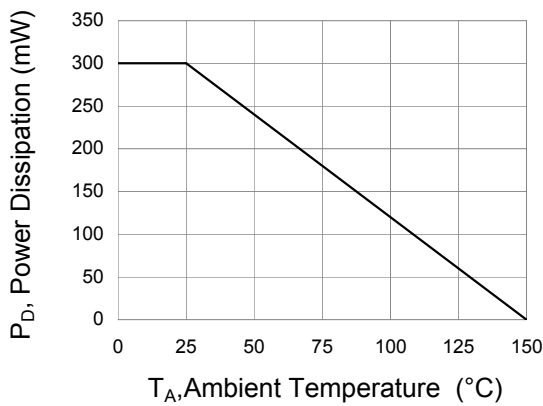


Fig.2 Power Derating Curve

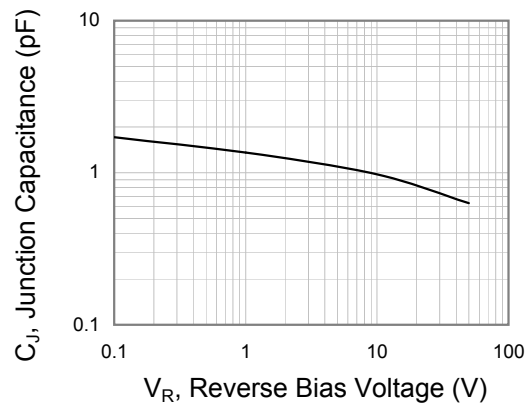


Fig.3 Typical Junction Capacitance

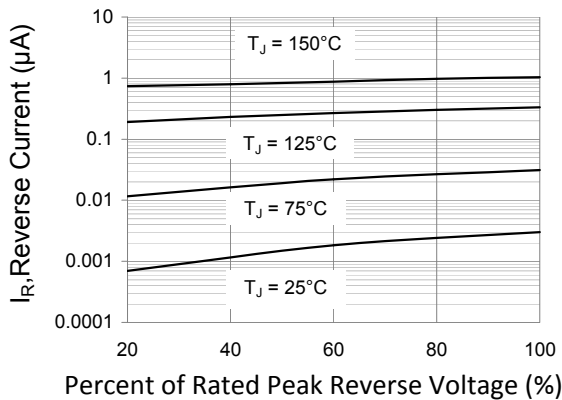


Fig.4 Typical Reverse Characteristics

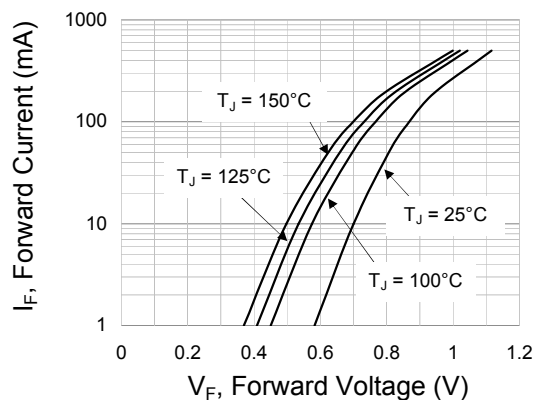
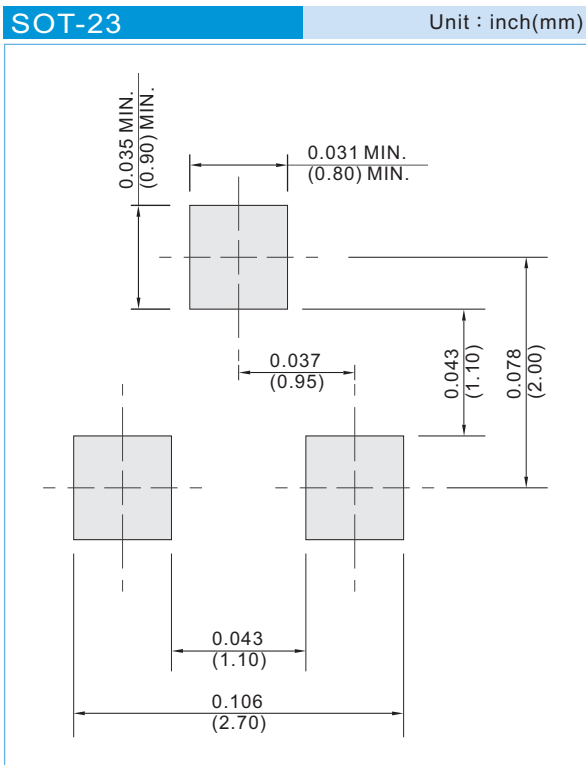


Fig.5 Typical Forward Characteristics



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MOUNTING PAD LAYOUT



ORDER INFORMATION

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

LEGAL STATEMENT

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