

# DATA SHEET

## MMBD6100

### SURFACE MOUNT SWITCHING DIODES

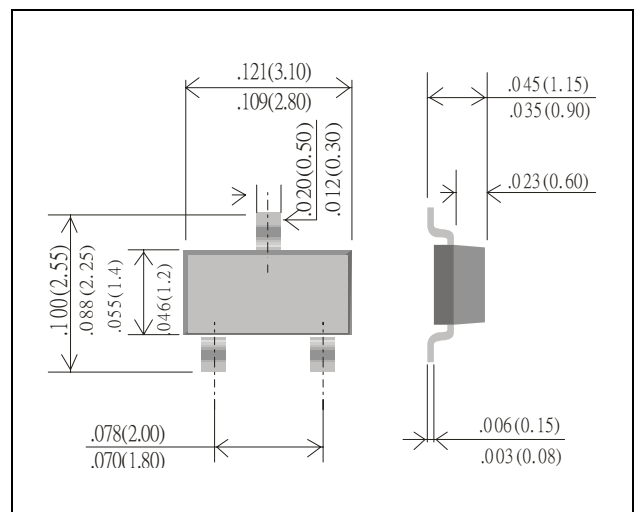
**VOLTAGE** 70 Volts **POWER** 350 mW

#### FEATURES

- ISOLATED, SERIES-CONNECTED DIODE PAIR
- SURFACE MOUNT PACKAGE IDEALLY SUITED FOR AUTOMATIC INSERTION

#### MECHANICAL DATA

- CASE : SOT-23 PLASTIC
- TERMINALS : SOLDERABLE PER MIL-STD-202, METHOD 208
- APPROX WEIGHT: 0.008 GRAMS



CASE : SOT-23

DIMENSIONS IN INCHES AND (MILLIMETERS)

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

RATINGS AT 25 °C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED.

PARAMETER	SYMBOL	VALUE	UNITS
MAXIMUM REVERSE VOLTAGE	$V_R$	70	V
PEAK REVERSE VOLTAGE	$V_{RM}$	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	49	V
CONTINUOUS FORWARD CURRENT	$I_{FM}$	200	mA
PEAK FORWARD SURGE CURRENT	$I_{FSM}$	500	mA
POWER DISSIPATION (NOTE 3)	$P_{TOT}$	350	mW
STORAGE TEMPERATURE	$T_{STG}$	- 65 TO + 150	°C
JUNCTION TEMPERATURE	$T_J$	150	°C

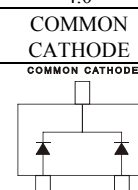
ELECTRICAL CHARACTERISTICS ( $A_T T_A = 25^\circ C$  UNLESS OTHERWISE NOTED)

PARAMETER	SYMBOL	VALUE	UNITS
REVERSE BREAKDOWN VOLTAGE AT 100 $\mu$ A	$V_{(BR)}$	100	V
FORWARD VOLTAGE	$V_F$	$I_F=1.0mA$	0.7
		$I_F=100mA$	1.1
REVERSE CURRENT AT 50V	$I_R$	0.1	$\mu$ A
TOTAL CAPACITANCE (NOTE 1)	$C_T$	2.5	pF
REVERSE RECOVERY TIME (NOTE 2)	$T_{RR}$	4.0	ns
CIRCUIT FIGURE		COMMON CATHODE	

NOTE: 1.  $V_R=0V, f=1.0MHz$

2.  $I_F=10mA$  TO  $I_{RR}=1mA, V_R=6V, R_L=100$

3. FR-5 BOARD = 1.0x0.75x0.062 IN.



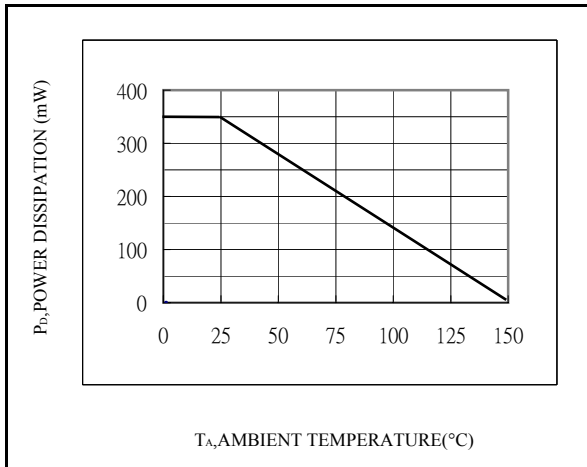


Fig.1-POWER DERATING CURVE

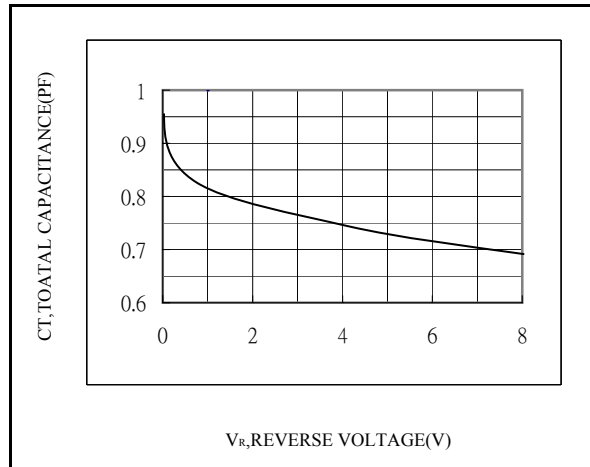


Fig.2-TYPICAL CAPACITANCE VS.REVERSE VOLTAGE

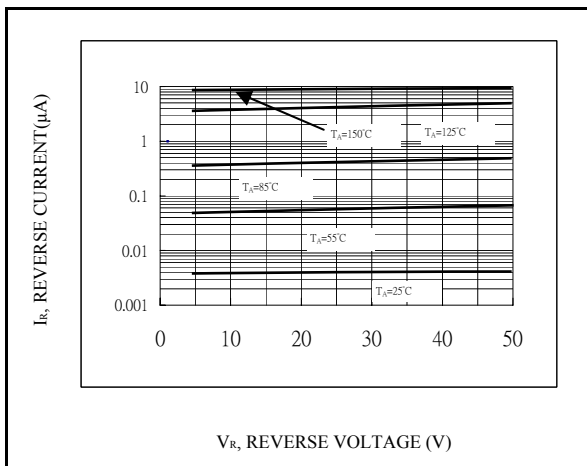


Fig.3- TYPICAL REVERSE CHARACTERISTICS

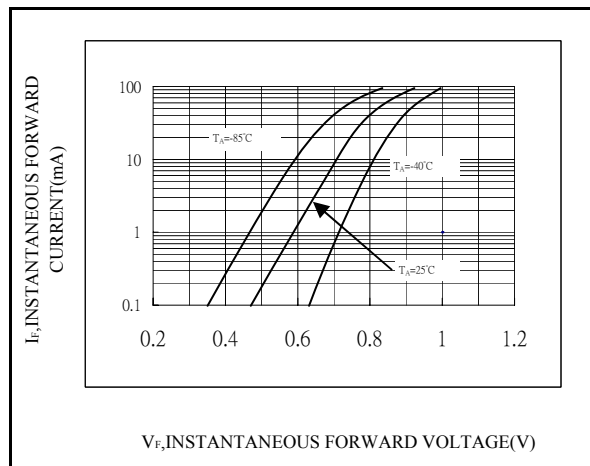


Fig.4- FORWARD CHARACTERISTIC

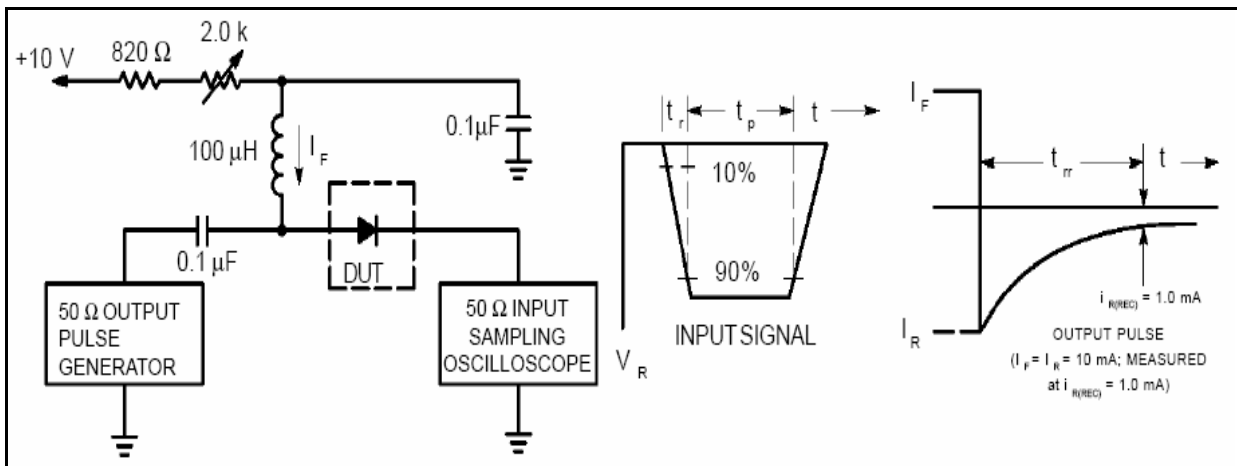


Fig.5-RECOVERY TIME EQUIVALENT TEST CIRCUIT