



MMBD6050

SURFACE MOUNT SWITCHING DIODES

VOLTAGE 80 Volts **POWER** 225 mWatts

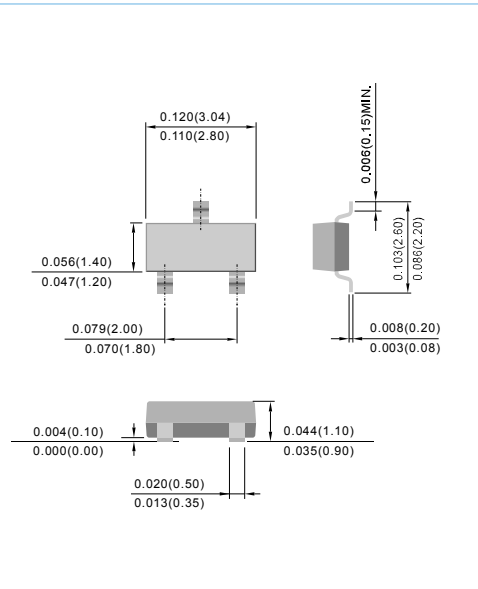
SOT-23 Unit: inch (mm)

: 95H F9G

- Very fast reverse recovery (trr < 2.0 ns typical)
- Low capacitance (< 2.5pF @ 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-23 plastic
 Terminals : Solderable per MIL-STD-750,Method 2026
 Approx weight : 0.0084 grams
 Marking : T2



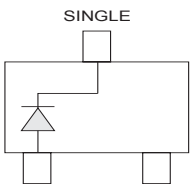
ABSOLUTE RATINGS

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=1.0 μs	I _{FSM}	4.0	A

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	VALUE	UNITS
Power Dissipation ⁽¹⁾	P _{TOT}	225	mW
Thermal Resistance, Junction to Ambient ⁽¹⁾	R _{θJA}	556	°C/W
Junction Temperature	T _J	-50 to 150	°C
Storage Temperature	T _{STG}	-50 to 150	°C

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

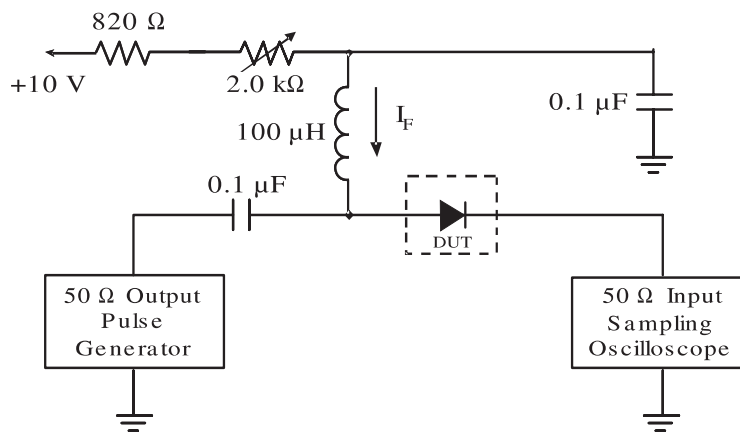




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ELECTRICAL CHARACTERISTICS ($T_j=25^{\circ}\text{C}$, unless otherwise noted)

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}	$I_F=I_R=10\text{mA}$, $R_L=100\ \Omega$	-	-	4.0	ns



- Notes: 1. A 2.0k Ω 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

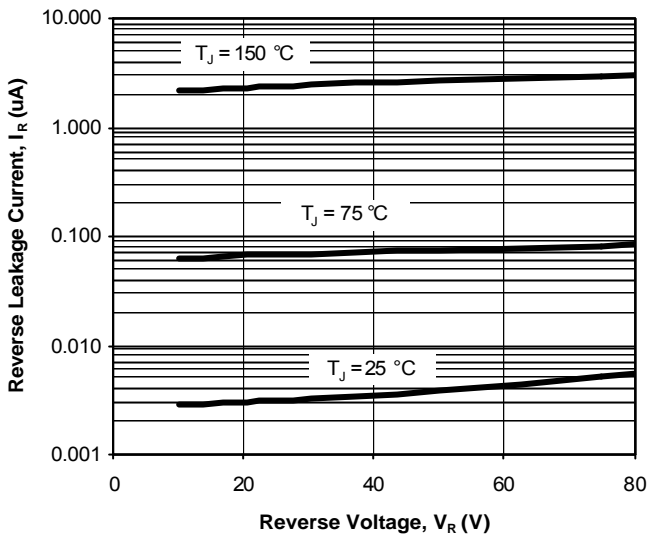


Fig. 2. Reverse Current vs. Reverse Voltage

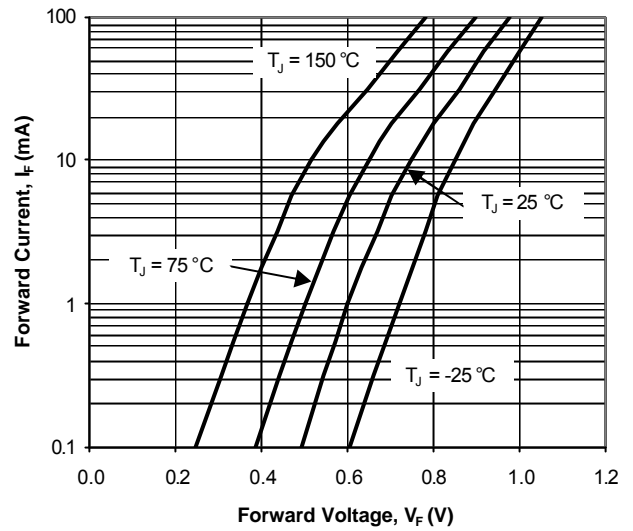


Fig. 3. Forward Current vs. Forward Voltage

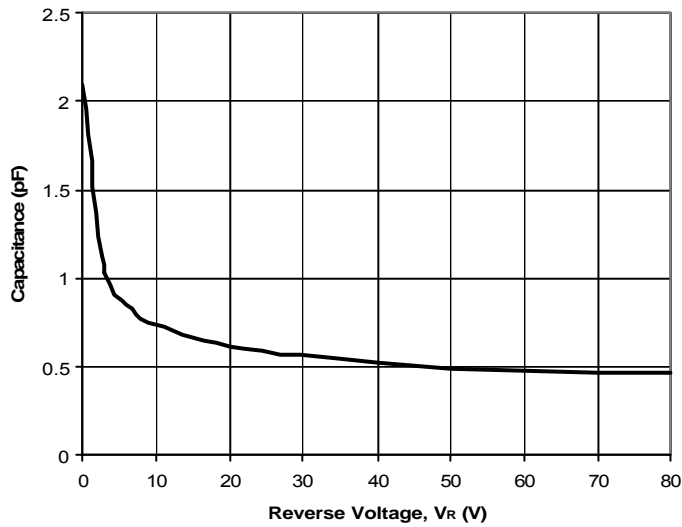
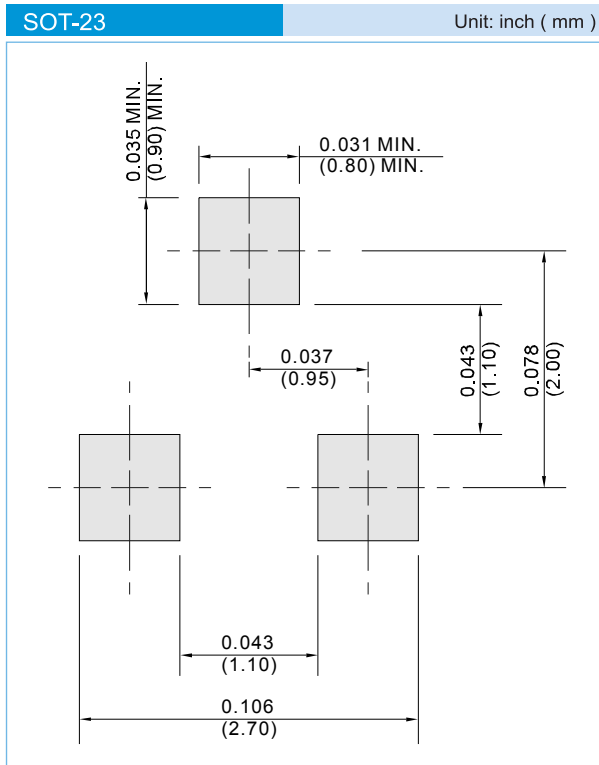


Fig. 4. Capacitance vs. Reverse Voltage



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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



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Part No_packing code_Version

MMBD6050_R1_00001

MMBD6050_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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