

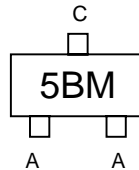


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MMBD6100

Features

- Low Current Leakage
- SOT-23 Package For Surface Mount Application
- Capable of 225Watts of Power Dissipation



Monolithic Dual Switching Diode

Maximum Ratings

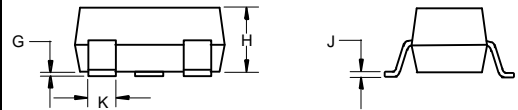
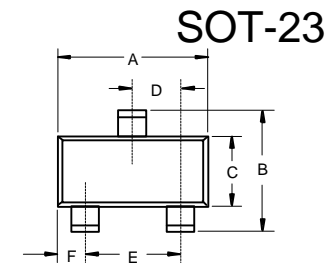
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 556°C/W Junction To Ambient

Electrical Characteristics @ 25 °C Unless Otherwise Specified

Reverse Voltage	V_R	70V	
Minimum Reverse Breakdown Voltage	V_{BR}	70V	$I_{BR}=100\mu A$
Forward Current	I_F	200mA	
Power Dissipation FR-5 Board ⁽¹⁾	P_{TOT}	225mW 1.8mW/°C	$T_A=25^\circ C$ Derate above 25°C
Power Dissipation Alumina Substrate ⁽²⁾	P_{TOT}	300mW 2.4mW/°C	$T_A=25^\circ C$ Derate above 25°C
Peak Forward Surge Current	I_{FSM}	500mA	8.3ms, half sine
Junction Temperature	T_J	150°C	
Forward Voltage	V_F	0.55~0.7V 0.85~1.1V	$I_F=1.0mA$ $I_F=100mA$
Maximum Reverse Voltage Leakage Current	I_R	0.1μA	$V_R=50V$ $T_A=25^\circ C$,
Maximum Junction Capacitance	C_J	2.5pF	Measured at $V_R=0V$
Maximum Reverse Recovery Time	T_{rr}	4.0nS	$I_F=I_R=10mA$ $I_R(RCE)=1.0mA$

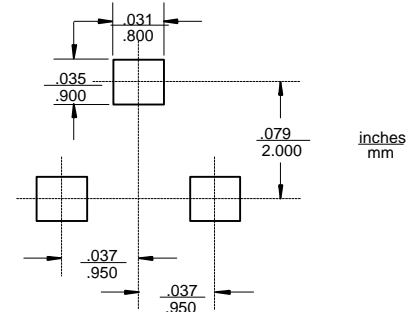
1) FR-5=1.0 x 0.75 x 0.062 in.

2) Alumina=0.4 x 0.3 x 0.024 in. 99.5% alumina.



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.110	.120	2.80	3.04	
B	.083	.098	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

Suggested Solder Pad Layout



MMBD6100

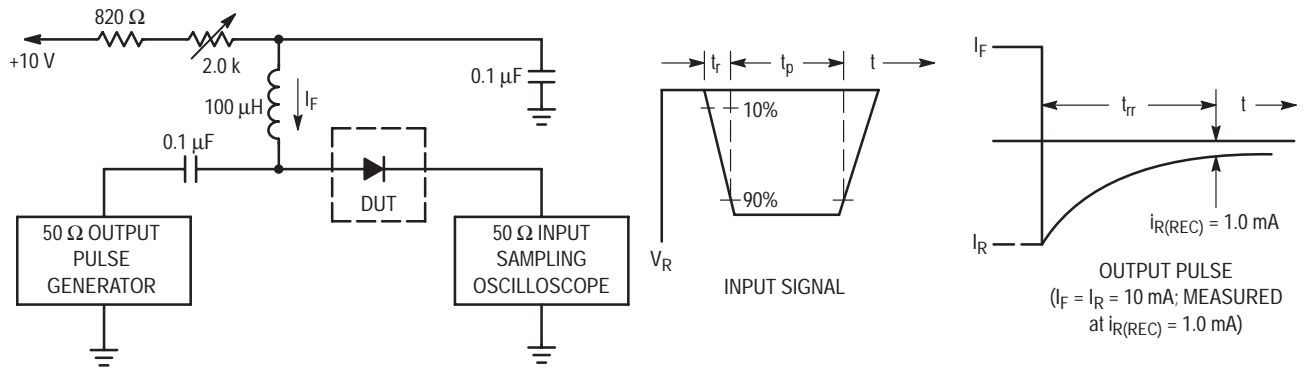


Figure 1. Recovery Time Equivalent Test Circuit

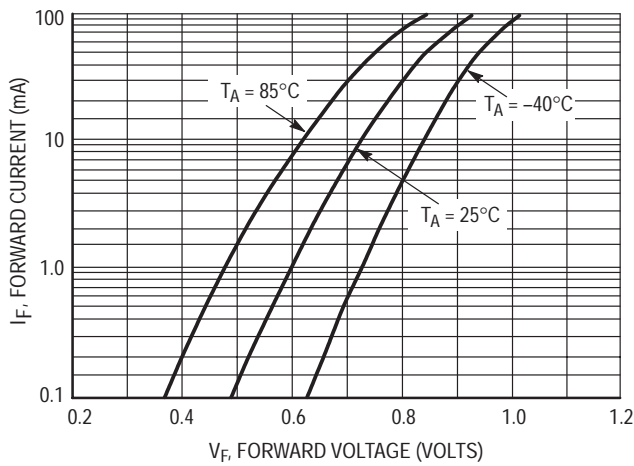


Figure 2. Forward Voltage

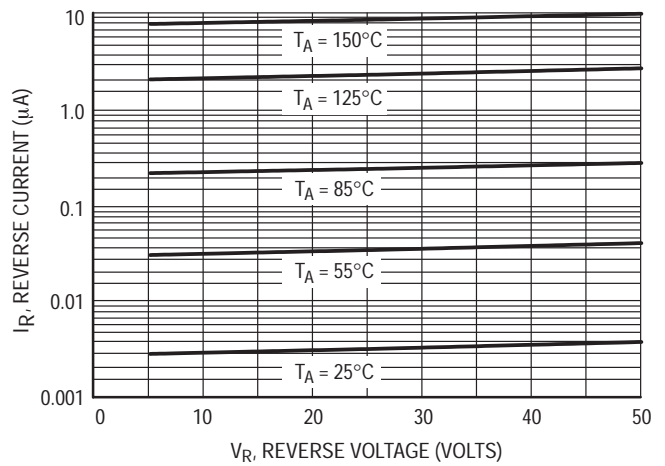


Figure 3. Leakage Current

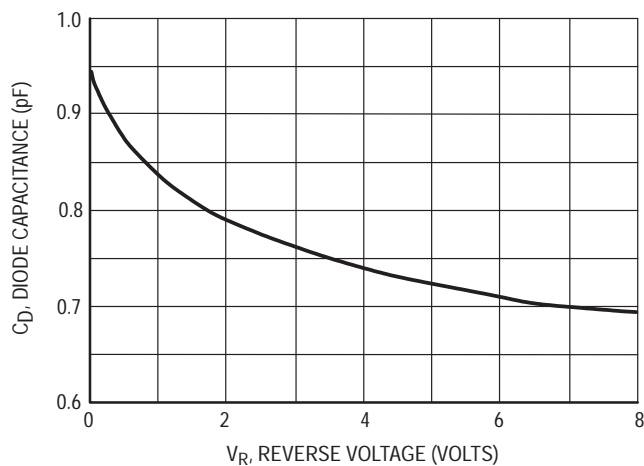


Figure 4. Capacitance