



Surface mount switching diode

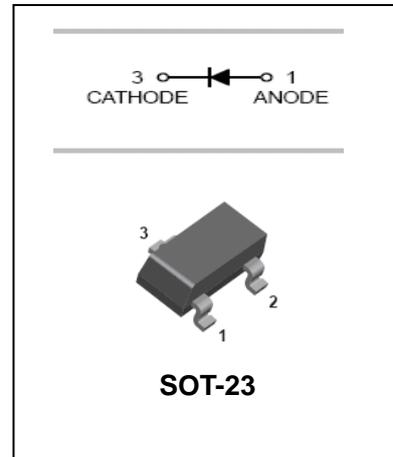
MMBD6050

FEATURES

- High conductance.
- Fast switching.
- Surface mount package ideally suited for automatic insertion.



Lead-free



APPLICATIONS

- For general purpose and switching application.

ORDERING INFORMATION

Type No.	Marking	Package Code
MMBD6050	5A	SOT-23

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Limits	Unit
Continuous Reverse Voltage	V_R	70	V
Forward current	I_F	200	mA
Peak surge forward Current	I_{FSM}	500	A
Power Dissipation	P_d	300	mW
Thermal resistance , Junction-to-Ambient	$R_{\theta JA}$	417	°C/W
Operating Junction Temperature Range	T_j	150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Min	MAX	UNIT	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	70		V	$I_R=100\mu A$
Forward Voltage	V_F	0.55 0.85	0.7 1.1	V	$I_F=1mA$ $I_F=100mA$
Reverse Leakage Current	I_R		0.1	μA	$V_R=50V$
Total Capacitance	C_{tot}		2.5	pF	$V_R=0V, f=1MHz$
Reverse Recovery Time	t_{rr}		4	ns	$I_F=I_R=10mA, I_{tr}=1mA$

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TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

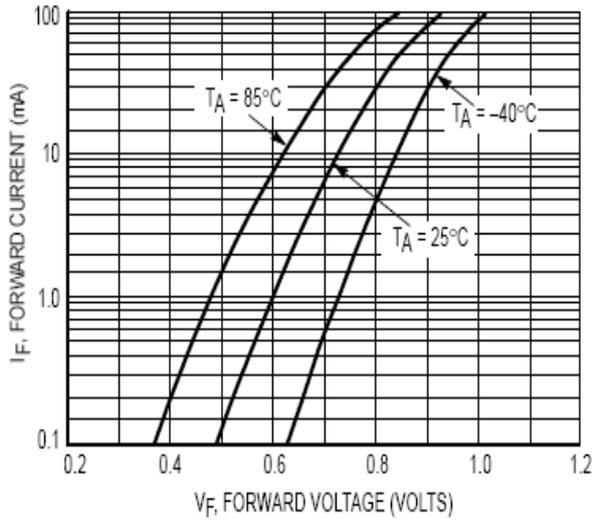


Figure 2. Forward Voltage

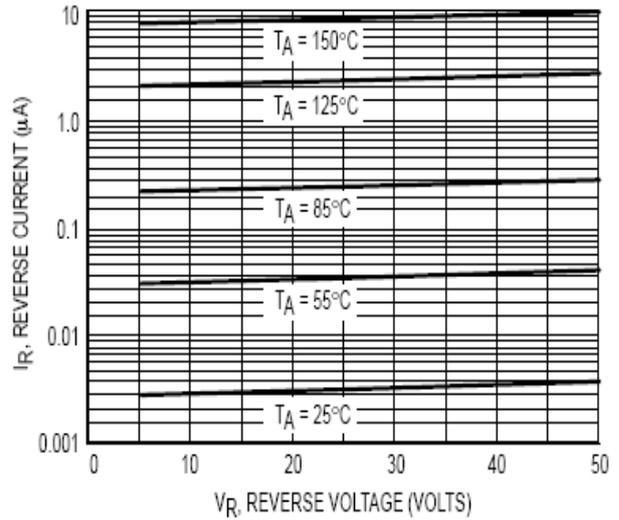


Figure 3. Leakage Current

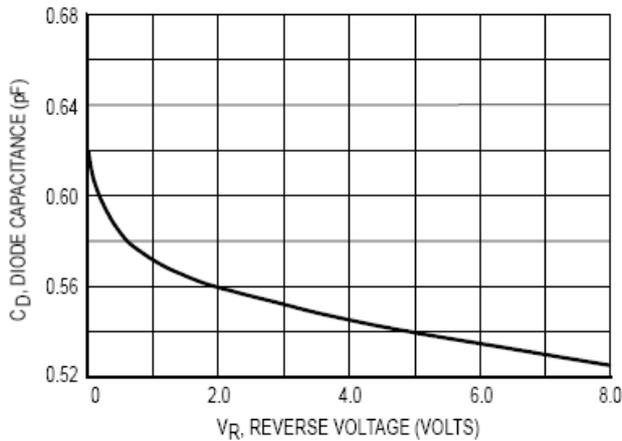


Figure 4. Capacitance

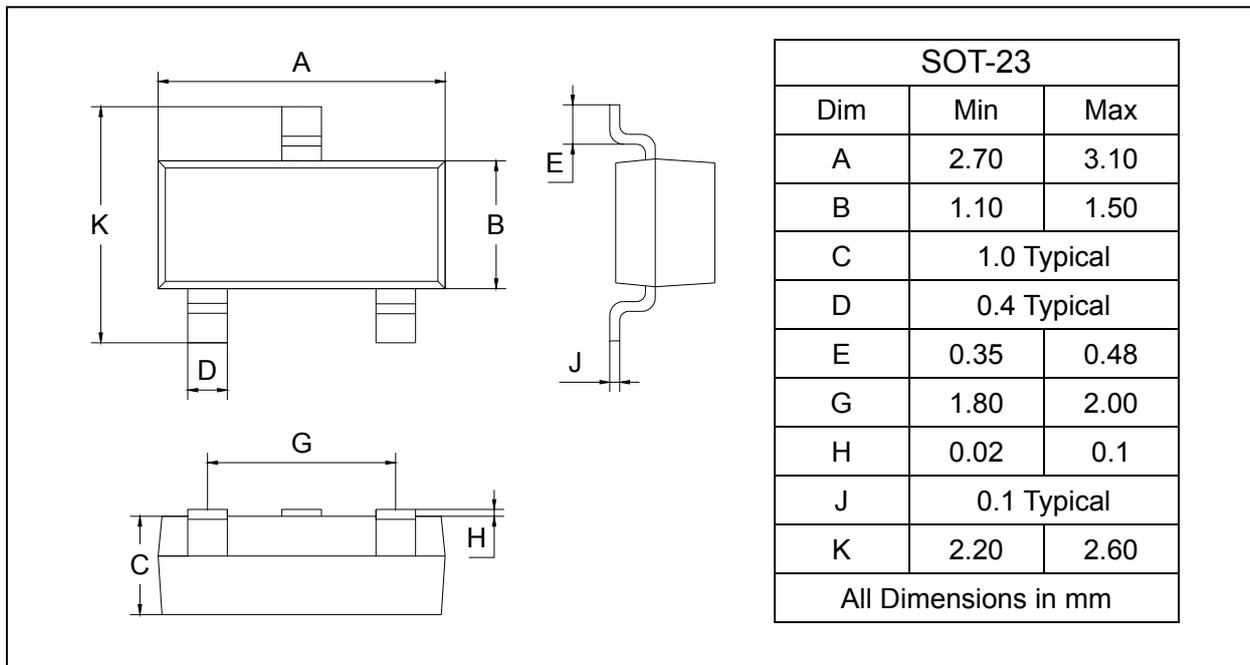
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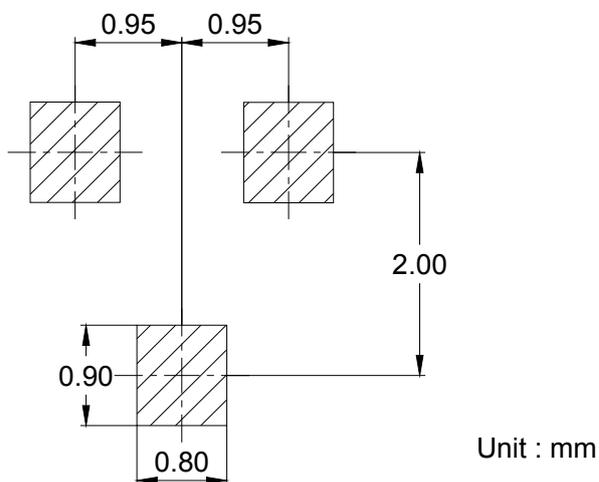
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
MMBD6050	SOT-23	3000/Tape&Reel