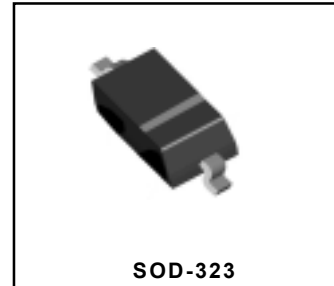


FETURE

- **Pb-Free package is available**
 RoHS product for packing code suffix "G"
 Halogen free product for packing code suffix "H"
- **Moisture Sensitivity Level 1**

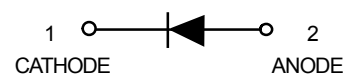
Ordering Information

Device	Marking	Shipping
MMDL6050	5A	3000/Tape&Reel



SOD-323

Polarity: Color band denotes cathode end



MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Reverse Voltage	V_R	70	Vdc
Forward Current	I_F	200	mAdc
Peak Forward Surge Current	$I_{FM(surge)}$	500	mAdc

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR-5 Board,* $T_A = 25^\circ\text{C}$	P_D	200	mW
Derate above 25°C		1.57	mW/ $^\circ\text{C}$
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	635	$^\circ\text{C/W}$
Junction and Storage Temperature	T_J, T_{stg}	150	$^\circ\text{C}$

**FR-4 Minimum Pad

DEVICE MARKING

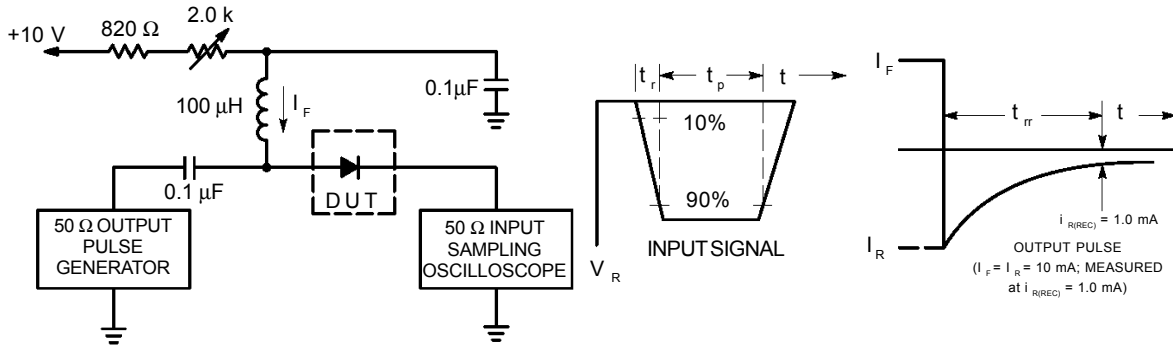
MMDL6050 = 5A

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

Characteristic	Symbol	Min	Max	Unit
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OFF CHARACTERISTICS

Reverse Breakdown Voltage ($I_{(BR)} = 100 \mu\text{Adc}$)	$V_{(BR)}$	70	—	Vdc
Reverse Voltage Leakage Current ($V_R = 50 \text{Vdc}$)	I_R	—	0.1	μAdc
Forward Voltage ($I_F = 1.0 \text{mAdc}$)	V_F	0.55	0.7	Vdc
($I_F = 100 \text{mAdc}$)		0.85	1.1	
Reverse Recovery Time ($I_F = I_R = 10 \text{mAdc}, I_{R(REC)} = 1.0 \text{mAdc}$) (Figure 1)	t_{rr}	—	4.0	ns
Capacitance ($V_R = 0 \text{V}$)	C	—	2.5	pF



- Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current (I_F) of 10mA.
- 2. Input pulse is adjusted so $I_{R(peak)}$ is equal to 10mA.
- 3. $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit

TYPICAL CHARACTERISTICS

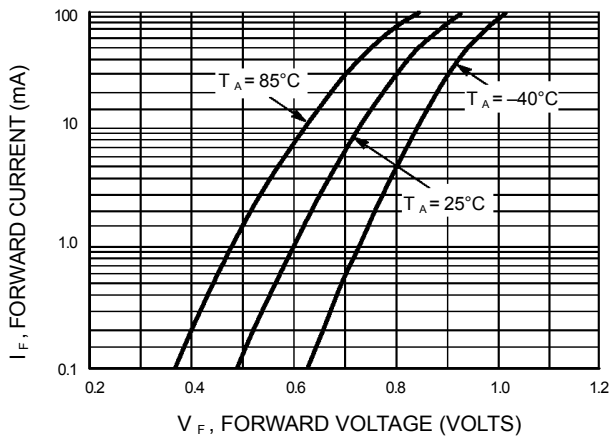


Figure 2. Forward Voltage

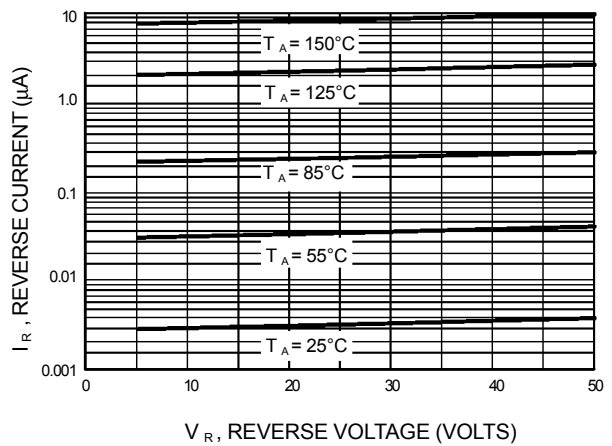


Figure 3. Leakage Current

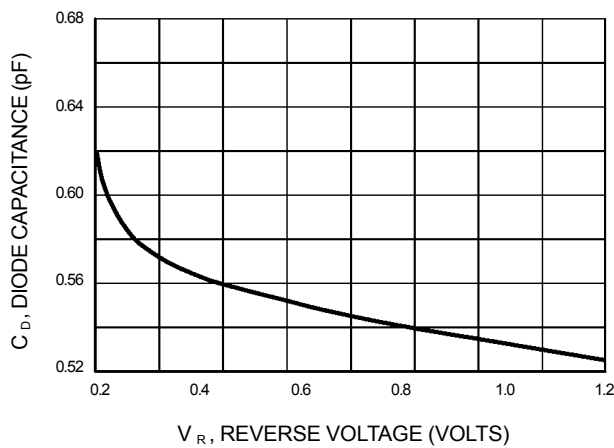


Figure 4. Capacitance



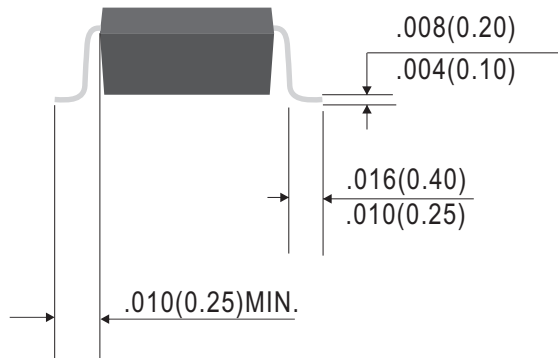
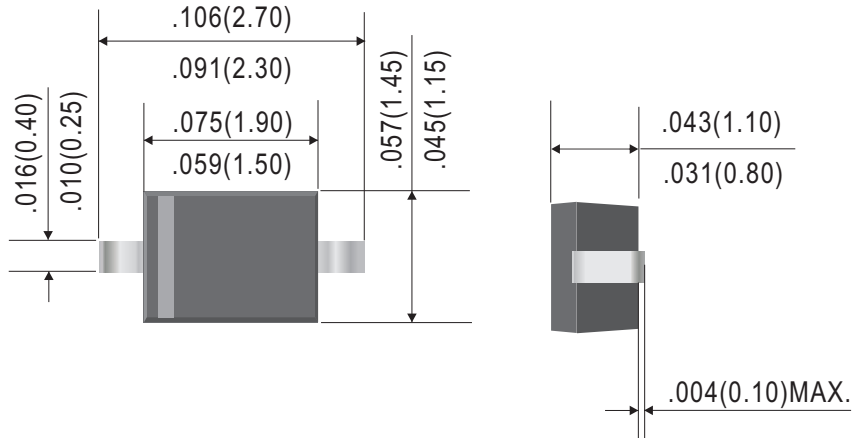
WILLAS



200mA Surface Mount Switching Diode - 70V
SOD-323 Package

MMDL6050

SOD-323



Dimensions in inches and (millimeters)

