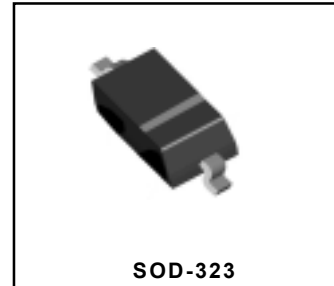


FETURE

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

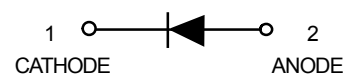
Ordering Information

| 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/°C |
| Thermal Resistance Junction to Ambient | $R_{\theta JA}$ | 635 | °C/W |
| Junction and Storage Temperature | T_J, T_{stg} | 150 | °C |

**FR-4 Minimum Pad

DEVICE MARKING

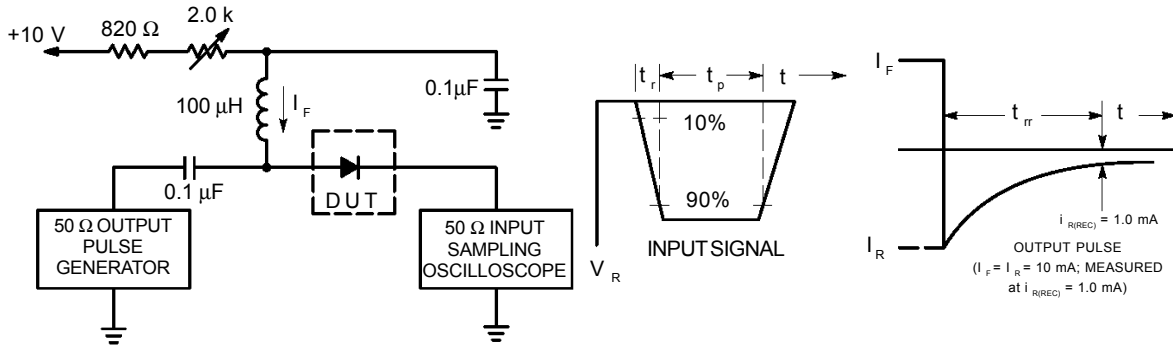
MMDL6050 = 5A

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

| Characteristic | Symbol | Min | Max | Unit |
|----------------|--------|-----|-----|------|
|----------------|--------|-----|-----|------|

OFFCHARACTERISTICS

| | | | | |
|--|------------|------|-----|-----------------|
| 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

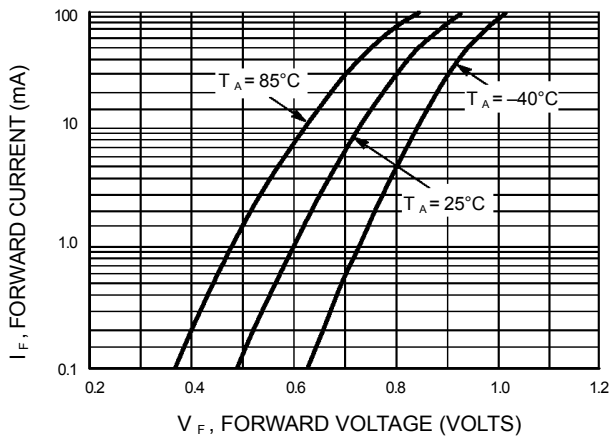


Figure 2. Forward Voltage

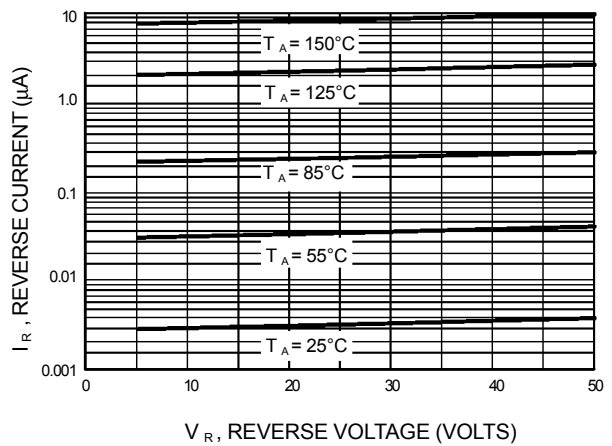


Figure 3. Leakage Current

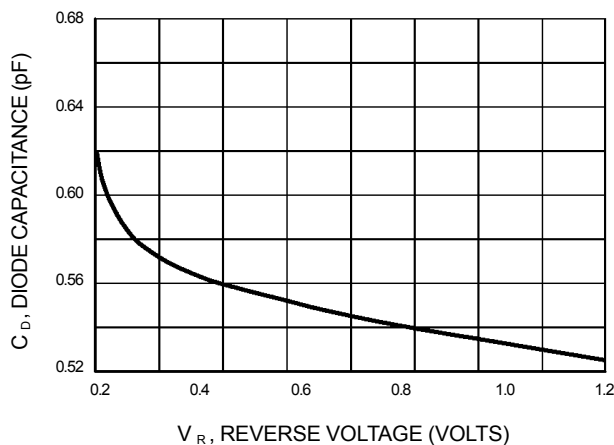


Figure 4. Capacitance



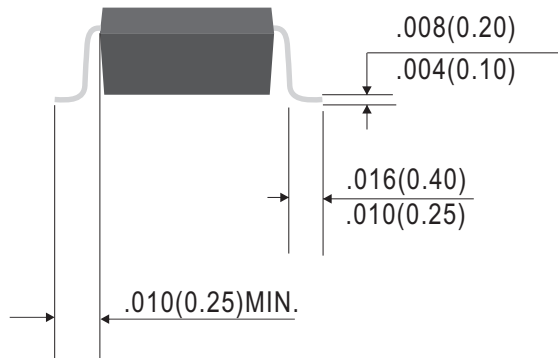
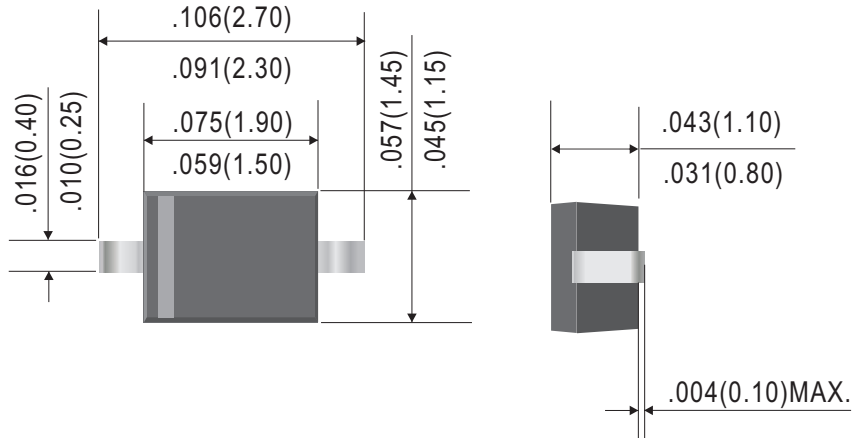
WILLAS



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

MMDL6050

SOD-323



Dimensions in inches and (millimeters)

