



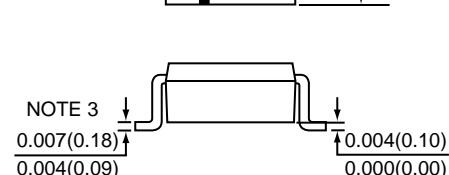
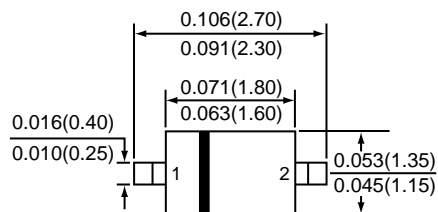
# MMDL6050T1

## SURFACE MOUNT SWITCHING DIODE

Reverse Breakdown Voltage - 70 Volts

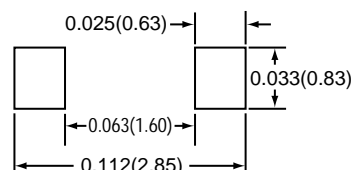
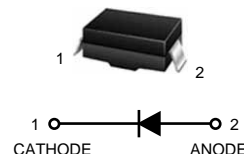
Peak Forward Current - 200mA

### SOD-323



- NOTES: 1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.  
2. CONTROLLING DIMENSION: MILLIMETERS.  
3. LEAD THICKNESS SPECIFIED PER L/F DRAWING WITH SOLDER PLATING.

\*Dimensions in inches and (millimeters)



Device Marking : MMDL6050T1 = 5A

### MAXIMUM RATINGS

<i>Ratings at 25 °C ambient temperature unless otherwise specified.</i>			
	SYMBOLS	VALUE	UNITS
Continuous Reverse Voltage	$V_R$	75	Vdc
Peak Forward Current	$I_F$	200	mAdc
Peak Forward Surge Current	$I_{FSM}$	500	mAdc

### THERMAL CHARACTERISTICS

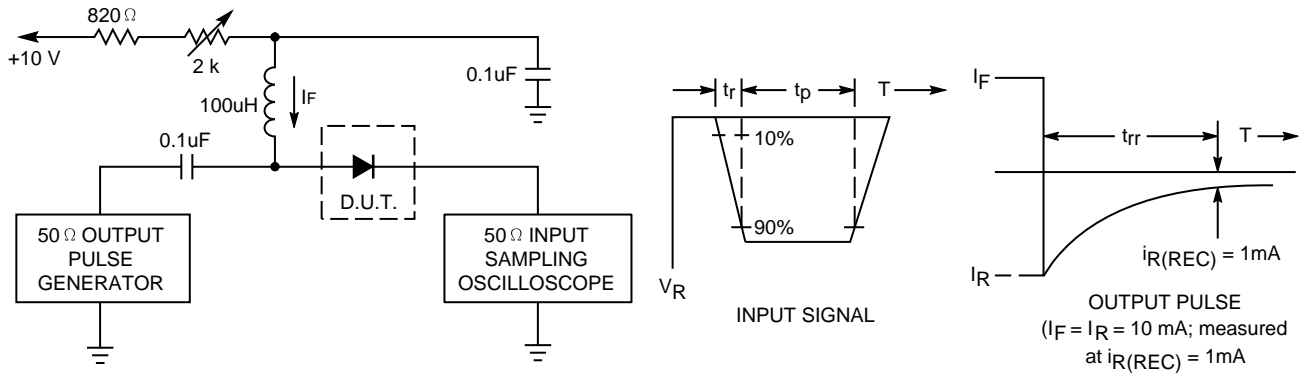
CHARACTERISTIC	SYMBOLS	MAX.	UNITS
Total Device Dissipation FR-5 Board, $T_A=25^\circ\text{C}$	$P_D$	200	mW
Derate above $25^\circ\text{C}$		1.57	mW / °C
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	635	°C / W
Junction and Storage Temperature	$T_J, T_{STG}$	150	°C

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

CHARACTERISTIC	SYMBOLS	MIN.	MAX.	UNITS
Reverse Breakdown Voltage ( $I_{BR}=100\mu\text{A}$ )	$V_{(BR)}$	70	-	Vdc
Reverse Voltage Leakage Current ( $V_R=50\text{Vdc}$ )	$I_R$	-	0.1	$\mu\text{Adc}$
Forward Voltage ( $I_F=1.0\text{mAdc}$ ) ( $I_F=100\text{mAdc}$ )	$V_F$	0.55 0.85	0.7 1.1	Vdc
Junction Capacitance ( $V_R=0\text{V}$ , $f = 1.0\text{MHz}$ )	$C_J$	-	2.5	pF
Reverse Recovery Time ( $I_F=I_R=10\text{mAdc}$ , $I_R(\text{REC}) = 1.0\text{mAdc}$ )	$t_{rr}$	-	4.0	nS

# RATINGS AND CHARACTERISTIC CURVES OF MMDL6050T1

FIGURE 1. RECOVERY TIME EQUIVALENT TEST CIRCUIT



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

FIGURE 2. FORWARD VOLTAGE

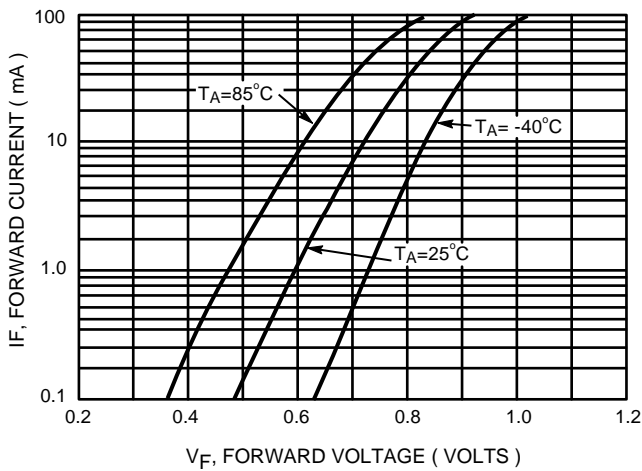


FIGURE 3. LEAKAGE CURRENT

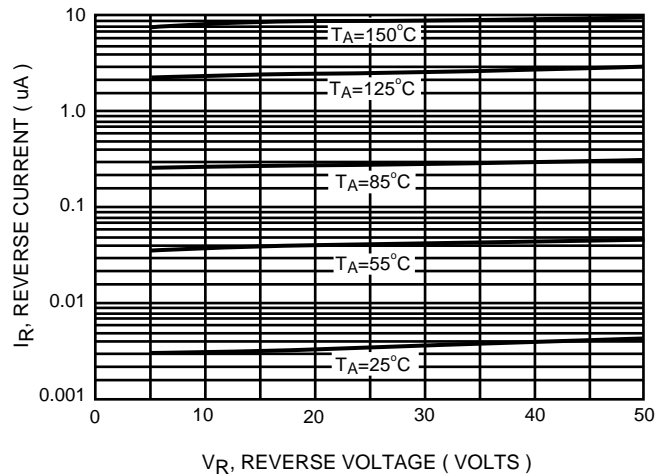


FIGURE 4. CAPACITANCE

