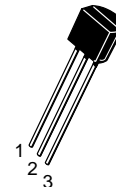


# Dual Switching Diode Common Cathode

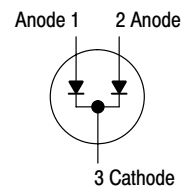
## MSD6100



CASE 29-11, STYLE 3  
TO-92 (TO-226AA)

### MAXIMUM RATINGS (EACH DIODE)

Rating	Symbol	Value	Unit
Reverse Voltage	$V_R$	100	Vdc
Recurrent Peak Forward Current	$I_F$	200	mAdc
Peak Forward Surge Current (Pulse Width = 10 $\mu$ sec)	$I_{FM(surge)}$	500	mAdc
Power Dissipation @ $T_A = 25^\circ\text{C}$ Derate above $25^\circ\text{C}$	$P_D^{(1)}$	625 5.0	mW mW/ $^\circ\text{C}$
Operating and Storage Junction Temperature Range	$T_J, T_{stg}^{(1)}$	-55 to +135	$^\circ\text{C}$



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

Characteristic	Symbol	Min	Max	Unit
Breakdown Voltage ( $I_{BR} = 100 \mu\text{Adc}$ )	$V_{(BR)}$	100	—	Vdc
Reverse Current ( $V_R = 100 \text{Vdc}$ ) ( $V_R = 50 \text{Vdc}$ ) ( $V_R = 50 \text{Vdc}, T_A = 125^\circ\text{C}$ )	$I_R$	— — —	5.0 0.1 50	$\mu\text{Adc}$
Forward Voltage ( $I_F = 1.0 \text{mAdc}$ ) ( $I_F = 10 \text{mAdc}$ ) ( $I_F = 100 \text{mAdc}$ )	$V_F$	0.55 0.67 0.75	0.7 0.82 1.1	Vdc
Capacitance ( $V_R = 0$ )	C	—	1.5	pF
Reverse Recovery Time ( $I_F = I_R = 10 \text{mAdc}, V_R = 5.0 \text{Vdc}, i_{rr} = 1.0 \text{mAdc}$ )	$t_{rr}$	—	4.0	ns

1. Continuous package improvements have enhanced these guaranteed Maximum Ratings as follows:  $P_D = 1.0 \text{ W} @ T_C = 25^\circ\text{C}$ , Derate above  $25^\circ\text{C}$  —  $8.0 \text{ mW}/^\circ\text{C}$ ,  $T_J = -65$  to  $+150^\circ\text{C}$ ,  $\theta_{JC} = 125^\circ\text{C}/\text{W}$ .

# MSD6100

## TYPICAL CHARACTERISTICS

Curves Applicable to Each Anode

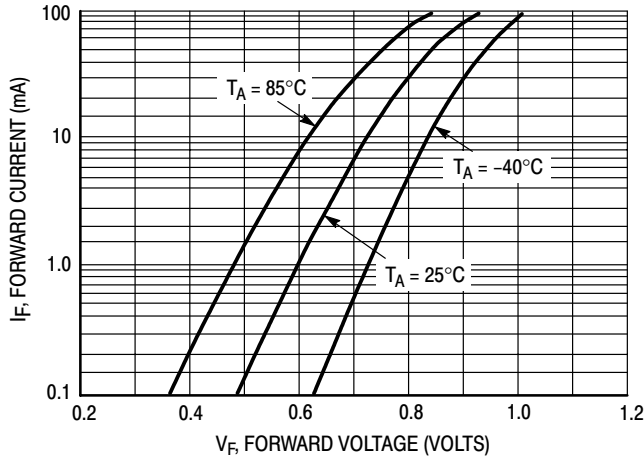


Figure 1. Forward Voltage

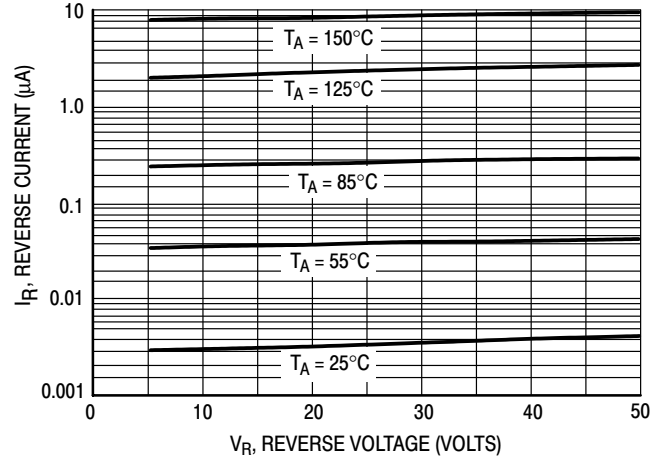


Figure 2. Leakage Current

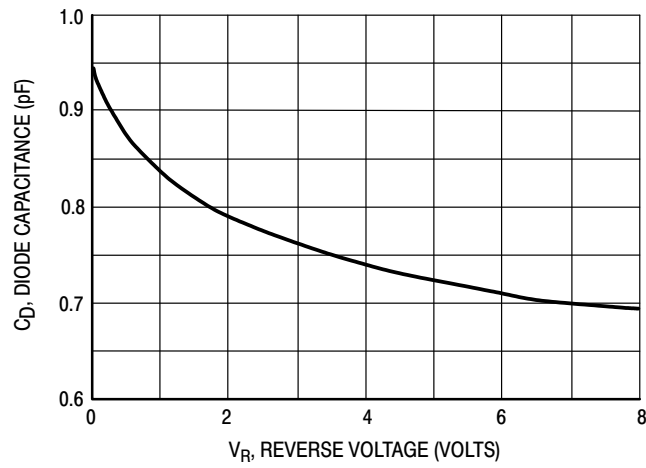


Figure 3. Capacitance