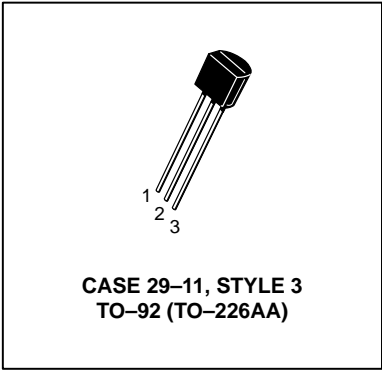


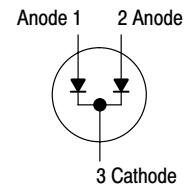
# Dual Switching Diode Common Cathode

**MSD6100**



**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  $25^\circ\text{C} — 8.0 \text{ mW}/^\circ\text{C}$ ,  $T_J = -65 \text{ to } +150^\circ\text{C}$ ,  $\theta_{JC} = 125^\circ\text{C}/\text{W}$ .

# MSD6100

## TYPICAL CHARACTERISTICS

Curves Applicable to Each Anode

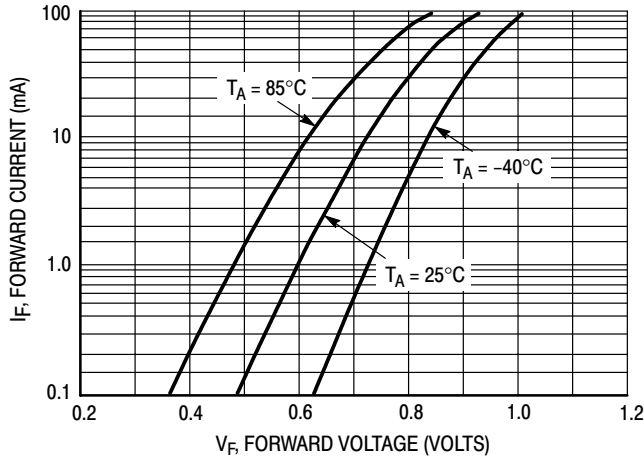


Figure 1. Forward Voltage

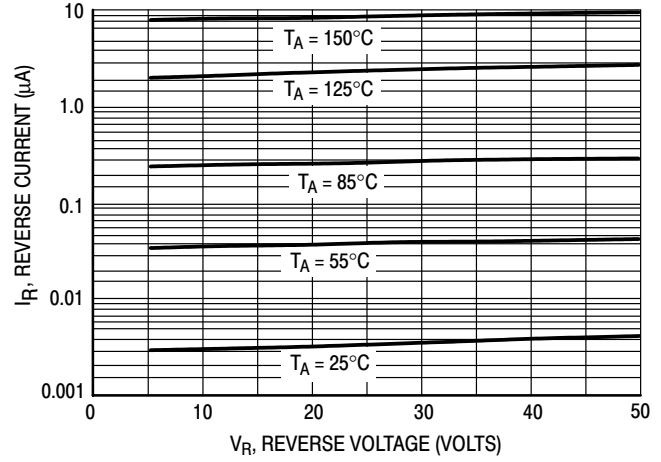


Figure 2. Leakage Current

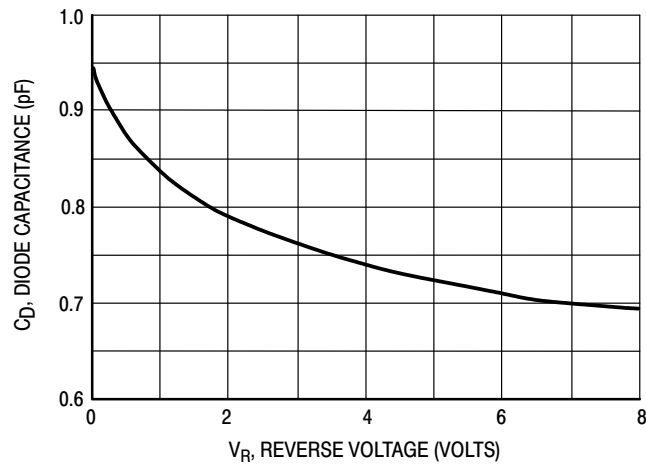
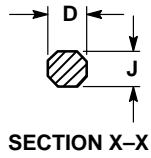
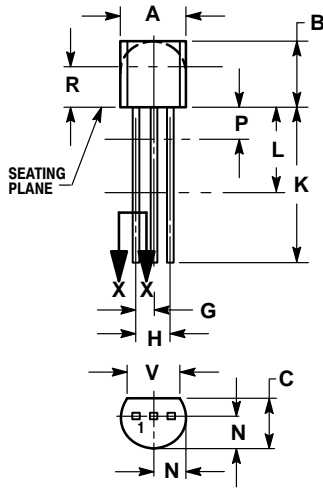


Figure 3. Capacitance

# MSD6100

## PACKAGE DIMENSIONS

TO-92 (TO-226AA)  
CASE 29-11  
ISSUE AL




STYLE 3:  
PIN 1. ANODE  
2. ANODE  
3. CATHODE

### NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.
3. CONTOUR OF PACKAGE BEYOND DIMENSION R IS UNCONTROLLED.
4. LEAD DIMENSION IS UNCONTROLLED IN P AND BEYOND DIMENSION K MINIMUM.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.175	0.205	4.45	5.20
B	0.170	0.210	4.32	5.33
C	0.125	0.165	3.18	4.19
D	0.016	0.021	0.407	0.533
G	0.045	0.055	1.15	1.39
H	0.095	0.105	2.42	2.66
J	0.015	0.020	0.39	0.50
K	0.500	---	12.70	---
L	0.250	---	6.35	---
N	0.080	0.105	2.04	2.66
P	---	0.100	---	2.54
R	0.115	---	2.93	---
V	0.135	---	3.43	---

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