

# MSD6150

## Dual Diode Common Anode

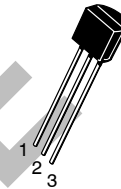


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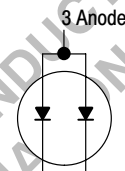
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### MAXIMUM RATINGS (EACH DIODE)

Rating	Symbol	Value	Unit
Reverse Voltage	$V_R$	70	Vdc
Peak Forward Recurrent Current	$I_F$	200	mAdc
Peak Forward Surge Current (Pulse Width = 10 $\mu$ sec)	$I_{FM(surge)}$	500	mAdc
Total Device 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	$^\circ\text{C}$



TO-92  
(TO-226AA)  
CASE 29-11  
STYLE 4



3 Anode  
Cathode 1 2 Cathode

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

Characteristic	Symbol	Min	Typ	Max	Unit
Breakdown Voltage ( $I_{BR} = 100 \mu\text{Adc}$ )	$V_{(BR)}$	70	—	—	Vdc
Reverse Current ( $V_R = 50 \text{Vdc}$ )	$I_R$	—	—	0.1	$\mu\text{Adc}$
Forward Voltage ( $I_F = 10 \text{mAdc}$ )	$V_F$	—	0.80	1.0	Vdc
Capacitance ( $V_R = 0$ )	C	—	5.0	8.0	pF
Reverse Recovery Time ( $I_F = I_R = 10 \text{mAdc}$ , $V_R = 5.0 \text{Vdc}$ , $i_{rr} = 1.0 \text{mAdc}$ )	$t_{rr}$	—	—	100	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  $8.0 \text{ mW}/^\circ\text{C}$ ,  $P_D = 10 \text{ W @ } T_C = 25^\circ\text{C}$ , Derate above  $80 \text{ mW}/^\circ\text{C}$ ,  $T_J, T_{stg} = -55 \text{ to } +150^\circ\text{C}$ ,  $\theta_{JC} = 12.5^\circ\text{C}/\text{W}$ ,  $\theta_{JA} = 125^\circ\text{C}$ .

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## TYPICAL CHARACTERISTICS

Curves Applicable to Each Cathode

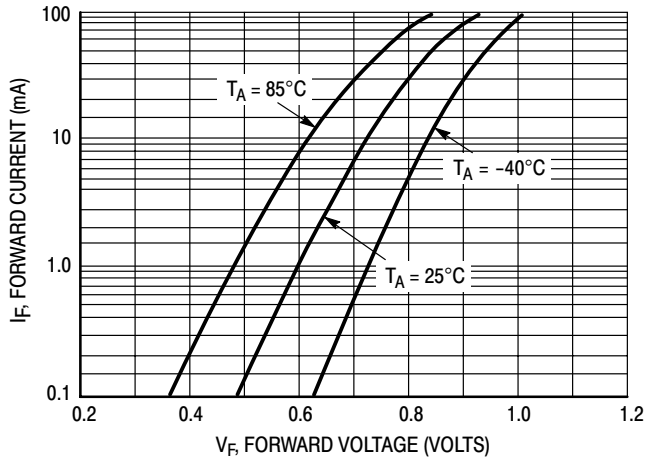


Figure 1. Forward Voltage

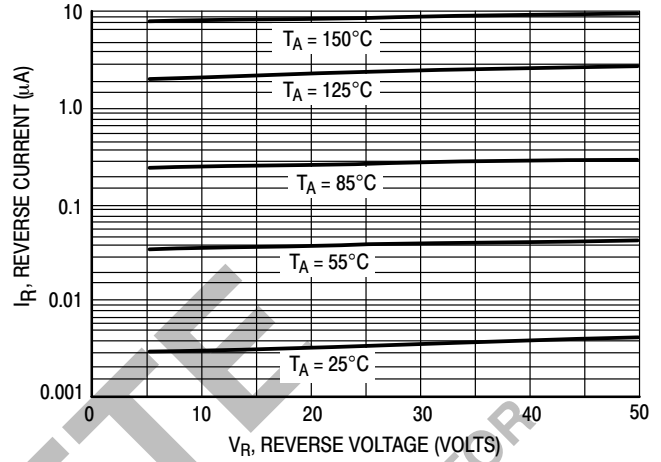


Figure 2. Leakage Current

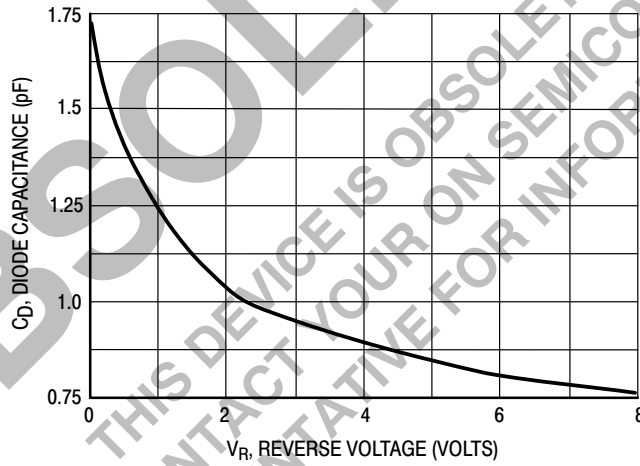
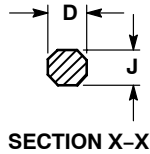
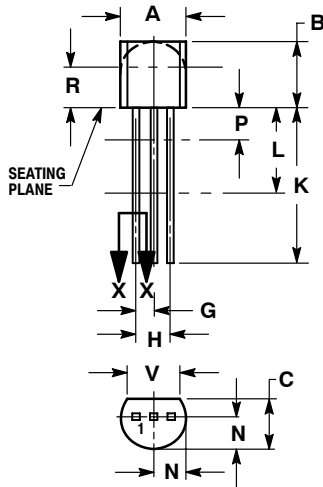


Figure 3. Capacitance

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## PACKAGE DIMENSIONS

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



#### 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	---

#### STYLE 4:

1. CATHODE
2. CATHODE
3. ANODE

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