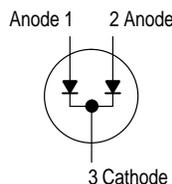


Dual Switching Diode Common Cathode

MSD6100



CASE 29-04, 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 μ sec)	$I_{FM}(\text{surge})$	500	mAdc
Power Dissipation @ $T_A = 25^\circ\text{C}$ Derate above 25°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	μAdc
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 $25^\circ\text{C} — 8.0 \text{ mW}/^\circ\text{C}$, $T_J = -65 \text{ to } +150^\circ\text{C}$, $\theta_{JC} = 125^\circ\text{C}/\text{W}$.

TYPICAL CHARACTERISTICS

Curves Applicable to Each Anode

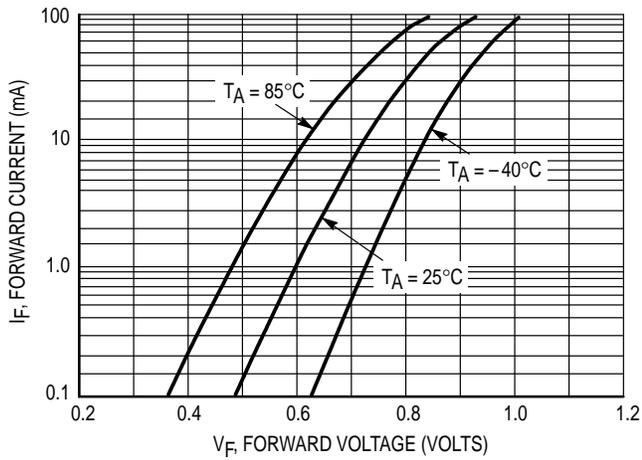


Figure 1. Forward Voltage

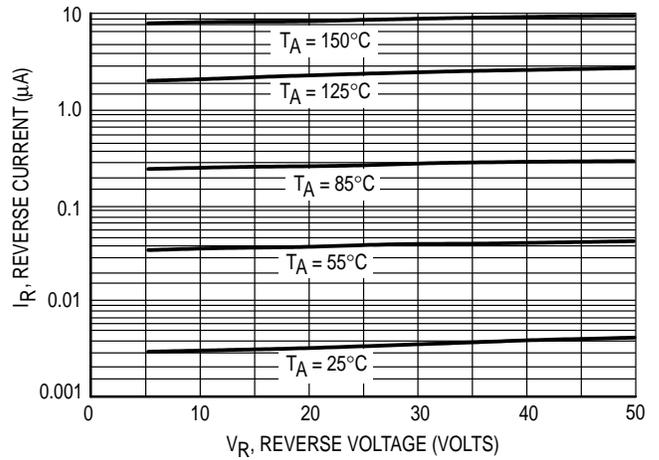


Figure 2. Leakage Current

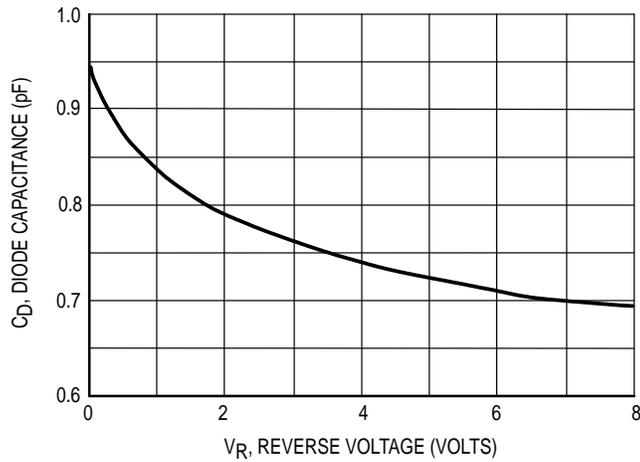
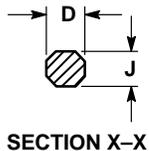
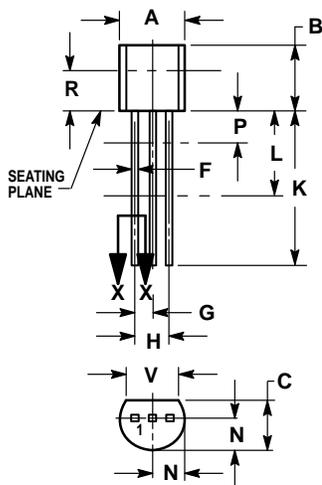


Figure 3. Capacitance

PACKAGE DIMENSIONS



CASE 029-04
(TO-226AA)
ISSUE AD

- NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
 2. CONTROLLING DIMENSION: INCH.
 3. CONTOUR OF PACKAGE BEYOND DIMENSION R IS UNCONTROLLED.
 4. DIMENSION F APPLIES BETWEEN P AND L. DIMENSION D AND J APPLY BETWEEN L AND K. MINIMUM 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	0.022	0.41	0.55
F	0.016	0.019	0.41	0.48
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 3:
1. ANODE
 2. ANODE
 3. CATHODE

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