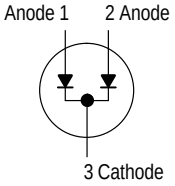
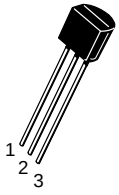
Dual Switching Diode Common Cathode

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 μsec)	$I_{FM(surge)}$	500	mAdc
Power Dissipation @ T_A = 25°C Derate above 25°C	P_D(1)	625 5.0	mW mW/°C
Operating and Storage Junction Temperature Range	T_J, T_{stg}(1)	–55 to +135	°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted) **(EACH DIODE)**

Characteristic	Symbol	Min	Max	Unit
Breakdown Voltage ($I_{(BR)}$ = 100 μAdc)	$V_{(BR)}$	100	—	Vdc
Reverse Current (V_R = 100 Vdc) (V_R = 50 Vdc) (V_R = 50 Vdc, T_A = 125°C)	I_R	 — — —	 5.0 0.1 50	μAdc
Forward Voltage (I_F = 1.0 mAdc) (I_F = 10 mAdc) (I_F = 100 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 mAdc, V_R = 5.0 Vdc, i_{rr} = 1.0 mAdc)	t_{rr}	—	4.0	ns

1. Continuous package improvements have enhanced these guaranteed Maximum Ratings as follows: P_D = 1.0 W @ T_C = 25°C, Derate above 25°C — 8.0 mW/°C, T_J = –65 to +150°C, θJC = 125°C/W.

TYPICAL CHARACTERISTICS

Curves Applicable to Each Anode

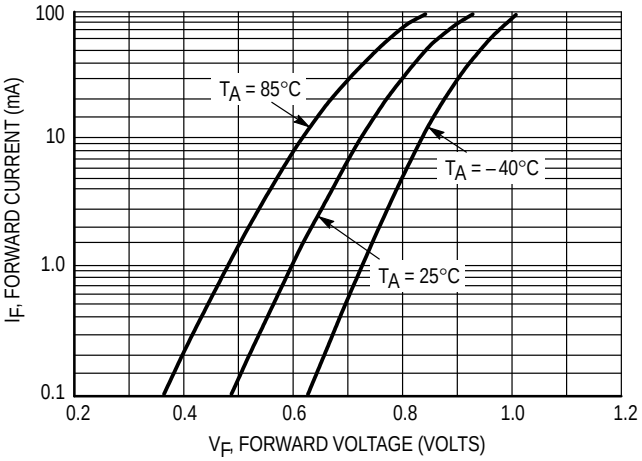


Figure 1. Forward Voltage

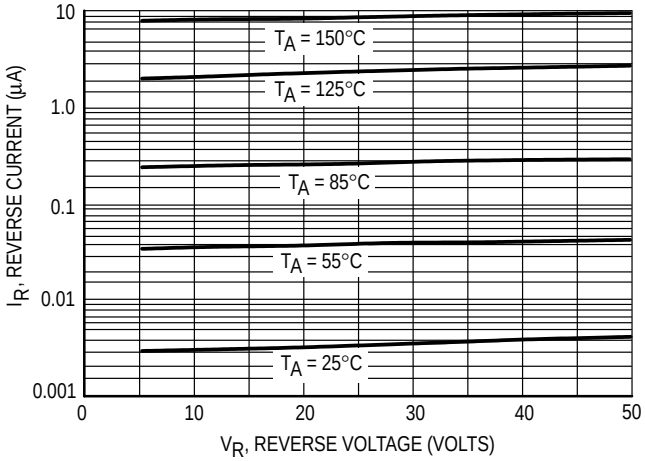


Figure 2. Leakage Current

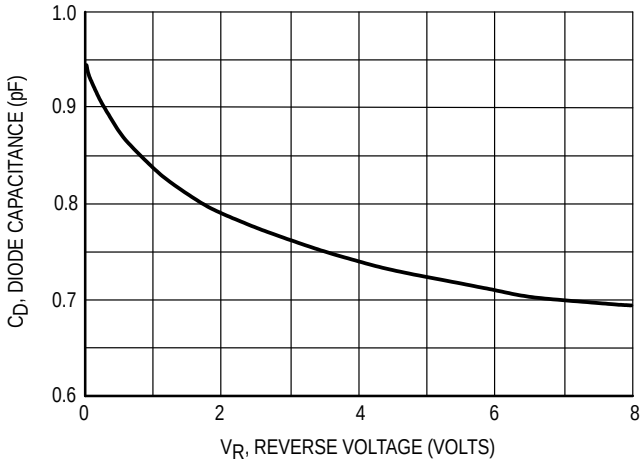
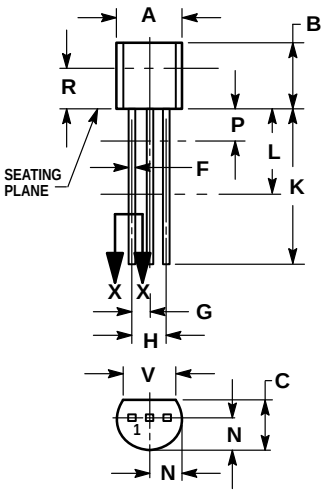
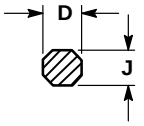


Figure 3. Capacitance

PACKAGE DIMENSIONS





SECTION X–X

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.

	INCHES		MILLIMETERS	
DIM	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	—

CASE 029–04
(TO–226AA)
ISSUE AD

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

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