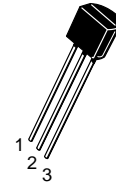
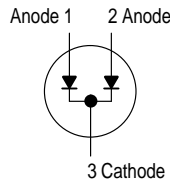


Dual Switching Diode Common Cathode

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

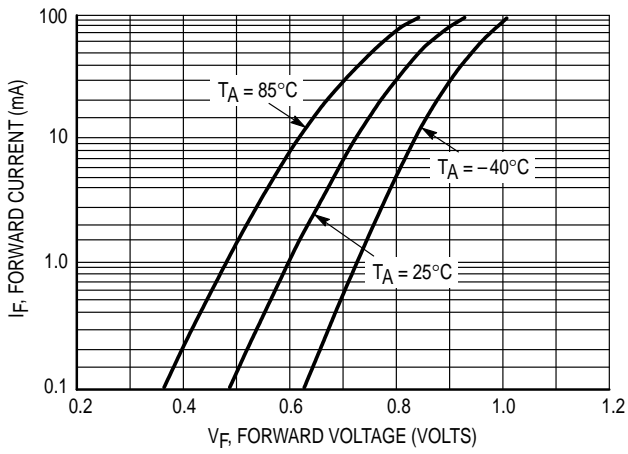


Figure 1. Forward Voltage

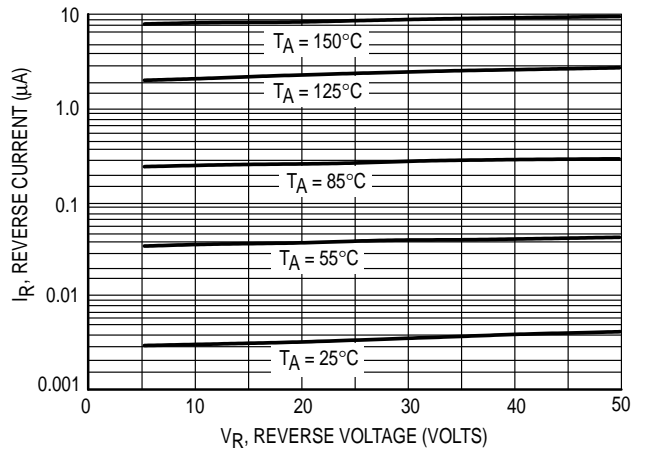


Figure 2. Leakage Current

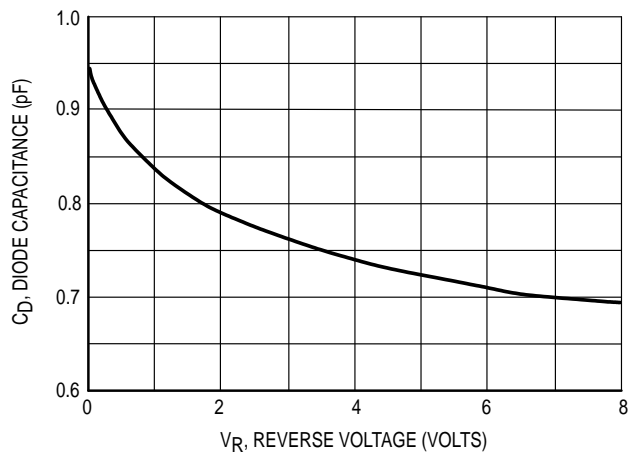
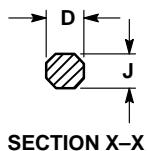
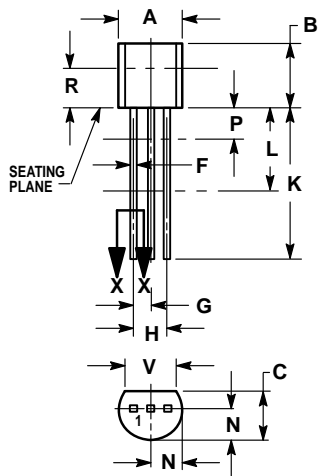


Figure 3. Capacitance

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

MSD6100

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