

1N4449

HIGH SPEED SWITCHING DIODE

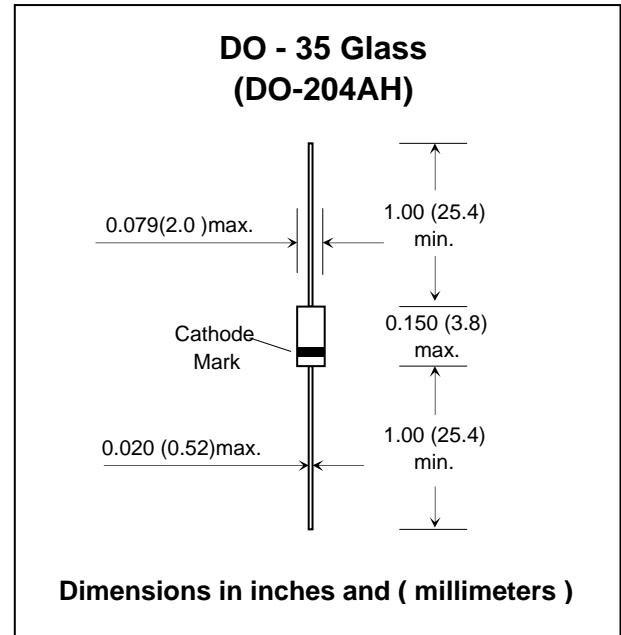
FEATURES :

- High switching speed: max. 4 ns
- Reverse voltage: max. 75V
- Peak reverse voltage: max. 100 V
- Pb / RoHS Free

MECHANICAL DATA :

Case: DO-35 Glass Case

Weight: approx. 0.13g



Maximum Ratings and Thermal Characteristics ($T_a = 25^\circ\text{C}$)

| Parameter | Symbol | Value | Unit |
|--|-------------|--------------|------------------|
| Maximum Peak Reverse Voltage | V_{RM} | 100 | V |
| Maximum Reverse Voltage | V_R | 75 | V |
| Maximum Forward DC Current | I_F | 200 | mA |
| Maximum Average Forward Current | $I_{F(AV)}$ | 150 | mA |
| Maximum Surge Forward Current at $t_p = 1 \mu\text{s}$ | I_{FSM} | 2 | A |
| Power Dissipation | P_D | 500 | mW |
| Maximum Junction Temperature | T_J | 200 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -65 to + 200 | $^\circ\text{C}$ |

Electrical Characteristics ($T_a = 25^\circ\text{C}$)

| Parameter | Symbol | Test Condition | Min. | Typ. | Max. | Unit |
|---------------------------|-------------|---|------|------|------|---------------|
| Reverse Current | I_R | $V_R = 20 \text{ V}$ | - | - | 25 | nA |
| | | $V_R = 20 \text{ V}, T_J = 150^\circ\text{C}$ | - | - | 50 | μA |
| Forward Voltage | V_F | $I_F = 5 \text{ mA}$ | 0.63 | - | 0.73 | V |
| | | $I_F = 30 \text{ mA}$ | - | - | 1.0 | |
| Reverse Breakdown Voltage | $V_{(BR)R}$ | $I_R = 100 \mu\text{A}$ (pulsed) | 100 | - | - | V |
| Diode Capacitance | Cd | $f = 1\text{MHz}; V_R = 0$ | - | - | 2 | pF |
| Reverse Recovery Time | T_{rr} | $I_F = 10 \text{ mA}, V_R = 6 \text{ V},$ $R_L = 100 \Omega$ | - | - | 4 | ns |

RATING AND CHARACTERISTIC CURVES (1N4449)

FIG1. - FORWARD CURRENT VS. FORWARD VOLTAGE

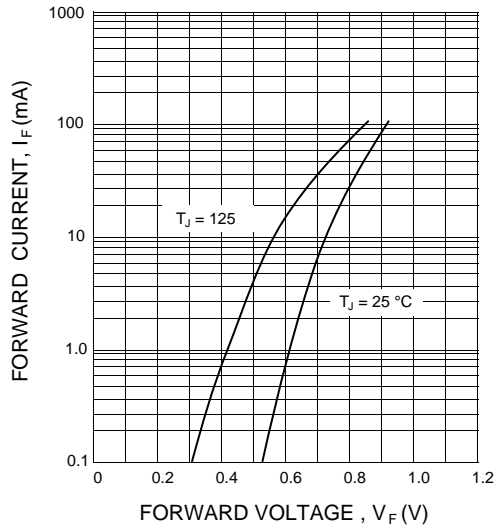


FIG.2 - REVERSE CURRENT VS. JUNCTION TEMPERATURE

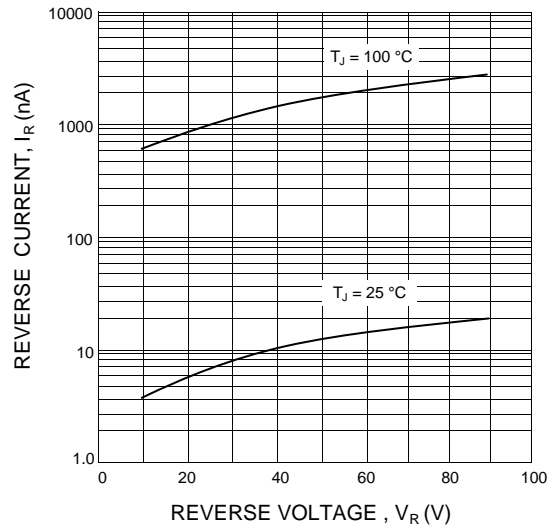


FIG3. - CAPACITANCE BETWEEN TERMINALS VS. REVERSE VOLTAGE

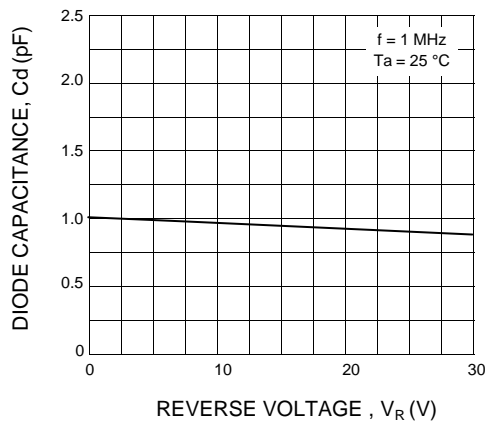


FIG. 4 - REVERSE RECOVERY TIME VS. FORWARD CURRENT

