

1N4151

FEATURES :

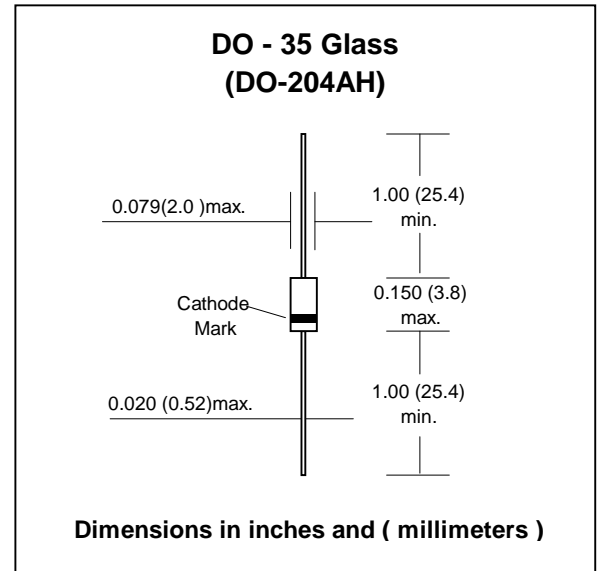
- High switching speed: max. 4 ns
- Reverse voltage: max. 50 V
- Peak reverse voltage: max. 75 V
- Pb / RoHS Free

MECHANICAL DATA :

Case: DO-35 Glass Case

Weight: approx. 0.13g

HIGH SPEED SWITCHING DIODE



Maximum Ratings and Thermal Characteristics (Rating at 25 °C ambient temperature unless otherwise specified.)

| Parameter | Symbol | Value | Unit |
|--|-------------|--------------|------|
| Maximum Peak Reverse Voltage | V_{RM} | 75 | V |
| Maximum Reverse Voltage | V_R | 50 | V |
| Maximum Continuous Forward Current | I_F | 200 | mA |
| Maximum Average Forward Current Half Wave Rectification with Resistive Load , $f \geq 50\text{Hz}$ ⁽¹⁾ | $I_{F(AV)}$ | 150 | mA |
| Maximum non-repetitive peak forward current at $t = 1\text{s}$ | I_{FSM} | 0.5 | A |
| Maximum Power Dissipation | P_D | 500 | mW |
| Maximum Junction Temperature | T_J | 175 | °C |
| Storage Temperature Range | T_S | -65 to + 175 | °C |

Electrical Characteristics ($T_J = 25^\circ\text{C}$ unless otherwise noted)

| Parameter | Symbol | Test Condition | Min | Typ | Max | Unit |
|---------------------------|-------------|--|-----|-----|------|---------------|
| Reverse Current | I_R | $V_R = 50\text{ V}$ | - | - | 0.05 | μA |
| | | $V_R = 50\text{ V}$, $T_J = 150\text{ }^\circ\text{C}$ | - | - | 50 | μA |
| Forward Voltage | V_F | $I_F = 50\text{ mA}$ | - | - | 1.0 | V |
| Reverse Breakdown Voltage | $V_{(BR)R}$ | $I_R = 5\text{ A (pulsed)}$ | 75 | - | - | V |
| Diode Capacitance | C_d | $f = 1\text{MHz}$; $V_R = 0$ | - | - | 2.5 | pF |
| Reverse Recovery Time | T_{rr} | $I_F = 10\text{ mA}$ to $I_R = 10\text{ mA}$ to $I_R = 1\text{ mA}$ | - | - | 4 | ns |

RATING AND CHARACTERISTIC CURVES (1N4151)

FIG. 1 MAXIMUM FORWARD CURRENT VERSUS AMBIENT TEMPERATURE

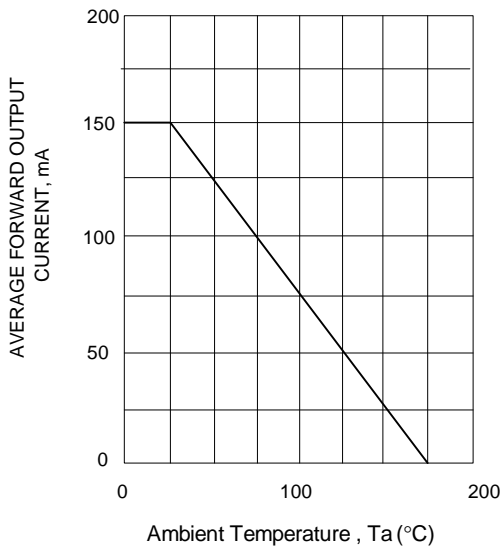


FIG. 2 TYPICAL FORWARD VOLTAGE

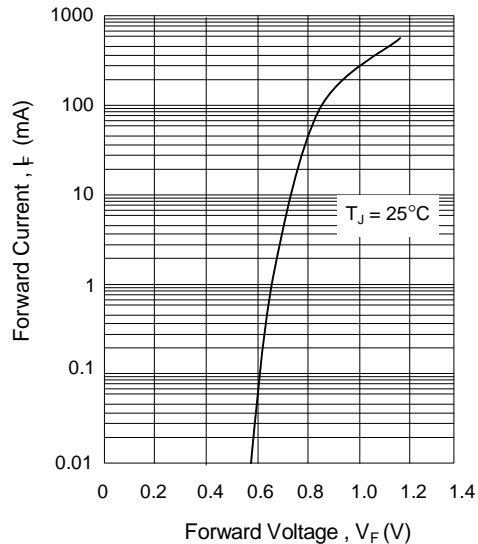


FIG. 3 TYPICAL DIODE CAPACITANCE AS A FUNCTION OF REVERSE VOLTAGE

