

# 1N914/A/B

## FEATURES :

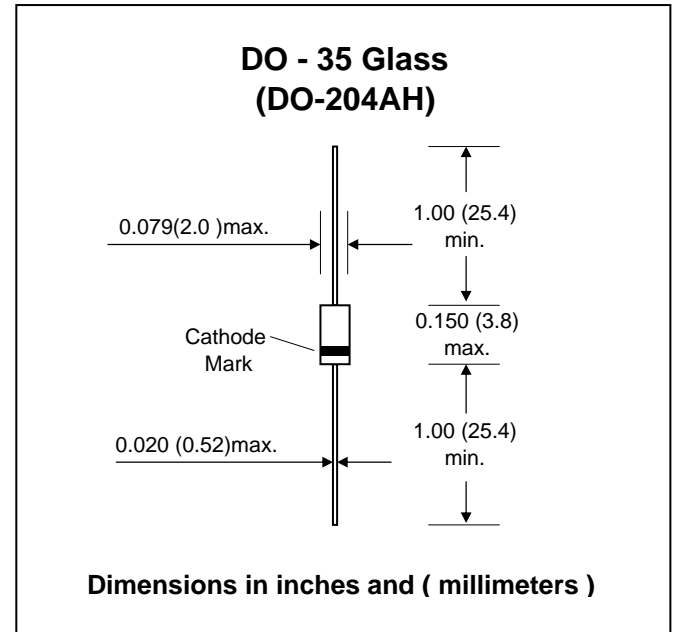
- High switching speed: max. 4 ns
- Continuous reverse voltage: max. 75 V
- Repetitive peak reverse voltage: max. 100 V
- Repetitive peak forward current: max. 225 mA
- Pb / RoHS Free

## MECHANICAL DATA :

**Case:** DO-35 Glass Case

**Weight:** approx. 0.13g

## HIGH SPEED SWITCHING DIODES



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

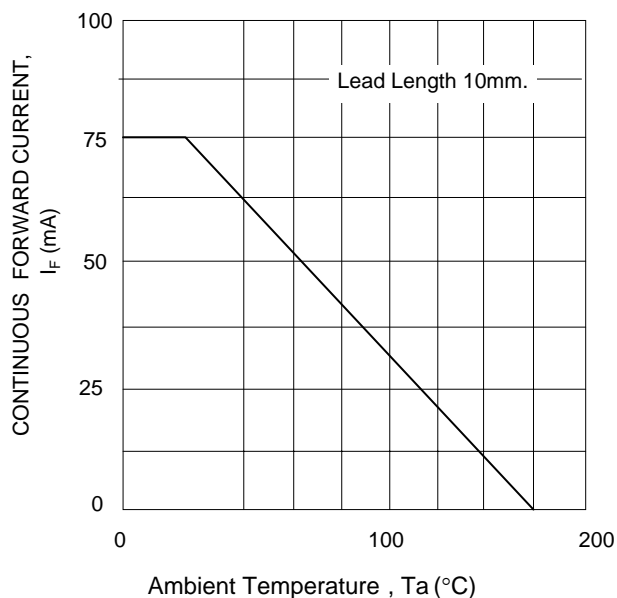
| Parameter                                               | Symbol    | Value        | Unit |
|---------------------------------------------------------|-----------|--------------|------|
| Maximum Repetitive Peak Reverse Voltage                 | $V_{RRM}$ | 100          | V    |
| Maximum Continuous Reverse Voltage                      | $V_{RM}$  | 75           | V    |
| Maximum Continuous Forward Current                      | $I_F$     | 75           | mA   |
| Maximum Power Dissipation                               | $P_D$     | 250          | mW   |
| Maximum Repetitive Peak Forward Current                 | $I_{FRM}$ | 225          | mA   |
| Maximum Non-repetitive Peak Forward Current at $t = 1s$ | $I_{FSM}$ | 0.5          | A    |
| Maximum Junction Temperature                            | $T_J$     | 175          | °C   |
| Storage Temperature Range                               | $T_S$     | -65 to + 200 | °C   |

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

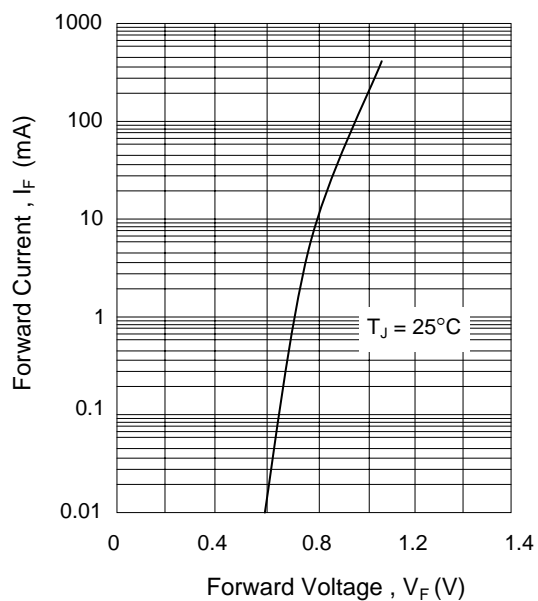
| Parameter             | Symbol   | Test Condition                                                                                      | Min  | Typ | Max  | Unit          |
|-----------------------|----------|-----------------------------------------------------------------------------------------------------|------|-----|------|---------------|
| Reverse Current       | $I_R$    | $V_R = 20\text{ V}$                                                                                 | -    | -   | 25   | nA            |
|                       |          | $V_R = 20\text{ V}, T_J = 150^\circ\text{C}$                                                        | -    | -   | 50   | $\mu\text{A}$ |
| Forward Voltage       | $V_F$    | <b>1N914</b><br>$I_F = 10\text{ mA}$                                                                | -    | -   | 1.0  | V             |
|                       |          | <b>1N914A</b><br>$I_F = 20\text{ mA}$                                                               | -    | -   | 1.0  | V             |
|                       |          | <b>1N914B</b><br>$I_F = 5\text{ mA}$                                                                | 0.62 | -   | 0.72 | V             |
|                       |          | <b>1N914B</b><br>$I_F = 100\text{ mA}$                                                              | -    | -   | 1.0  | V             |
| Diode Capacitance     | $C_d$    | $f = 1\text{MHz}; V_R = 0$                                                                          | -    | -   | 4.0  | pF            |
| Reverse Recovery Time | $T_{rr}$ | $I_F = 10\text{ mA to } I_R = 60\text{ mA}$<br>$R_L = 100\ \Omega$ ; measured at $I_R = 1\text{mA}$ | -    | -   | 4    | ns            |

## RATING AND CHARACTERISTIC CURVES ( 1N914/A/B )

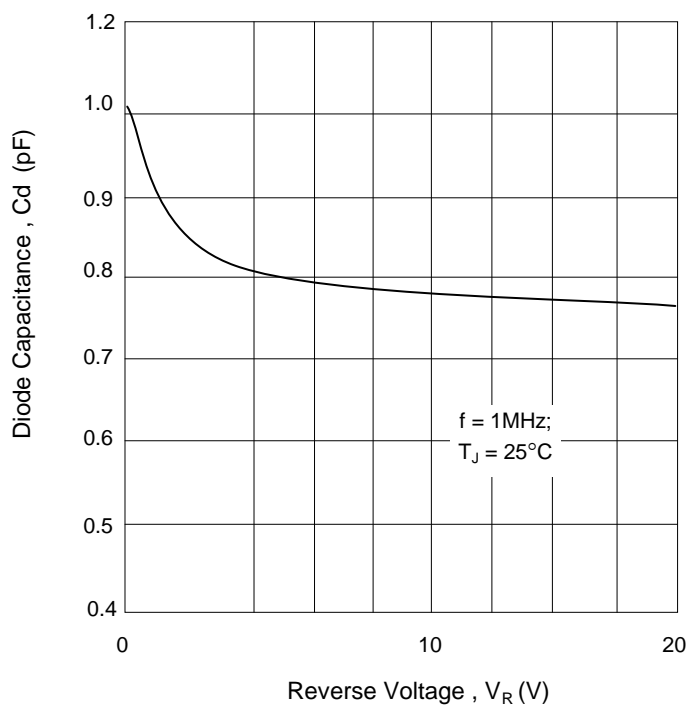
**FIG. 1 MAXIMUM PERMISSIBLE CONTINUOUS FORWARD CURRENT AS A FUNCTION OF AMBIENT TEMPERATURE.**



**FIG. 2 TYPICAL FORWARD VOLTAGE**



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



**FIG. 4 TYPICAL REVERSE CURRENT VERSUS JUNCTION TEMPERATURE**

