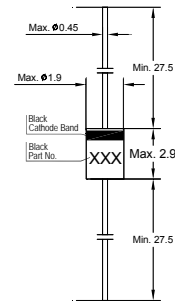


# 1N4531, 1N4532

## Silicon Epitaxial Planar Switching Diode

### Applications

- High-speed switching



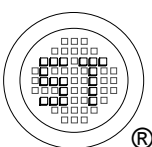
Glass Case DO-34  
Dimensions in mm

### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

| Parameter                           | Symbol    | Value                  | Unit             |
|-------------------------------------|-----------|------------------------|------------------|
| Repetitive Peak Reverse Voltage     | $V_{RRM}$ | 75                     | V                |
| Continuous Reverse Voltage          | $V_R$     | 75                     | V                |
| Continuous Forward Current          | $I_F$     | 200                    | mA               |
| Repetitive Peak Forward Current     | $I_{FRM}$ | 450                    | mA               |
| Non-repetitive Peak Forward Current | $I_{FSM}$ | at $t = 1 \mu\text{s}$ | 4                |
|                                     |           | at $t = 1 \text{ms}$   | 1                |
|                                     |           | at $t = 1 \text{s}$    | 0.5              |
| Power Dissipation                   | $P_{tot}$ | 500                    | mW               |
| Junction Temperature                | $T_j$     | 200                    | $^\circ\text{C}$ |
| Storage Temperature Range           | $T_{stg}$ | - 65 to + 200          | $^\circ\text{C}$ |

### Characteristics at $T_a = 25^\circ\text{C}$

| Parameter  | Symbol   | Max.  | Unit              |
|--|----------|---|-------------------|
| Forward Voltage<br>at $I_F = 10 \text{mA}$   | $V_F$    | 1   | V                 |
| Reverse Current  | $I_R$    | at $V_R = 20 \text{V}$<br>1N4531  | 25 nA             |
|  |          | at $V_R = 50 \text{V}$<br>1N4532  | 100 nA            |
|  |          | at $V_R = 20 \text{V}$ , $T_j = 150^\circ\text{C}$<br>1N4531                  | 50 $\mu\text{A}$  |
|  |          | at $V_R = 50 \text{V}$ , $T_j = 150^\circ\text{C}$<br>1N4532                  | 100 $\mu\text{A}$ |
| Diode Capacitance<br>at $V_R = 0$ , $f = 1 \text{MHz}$                                       | $C_d$    | 1N4531  | 4 pF              |
|  |          | 1N4532  | 2 pF              |
| Reverse Recovery Time<br>at $I_F = 10 \text{mA}$ , $I_R = 60 \text{mA}$ , $R_L = 100 \Omega$ | $t_{rr}$ | 1N4531  | 4 ns              |
|  |          | 1N4532  | 2 ns              |
|  |          | at $I_F = 10 \text{mA}$ , $I_R = 10 \text{mA}$ , $R_L = 100 \Omega$<br>1N4532 | 4 ns              |



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