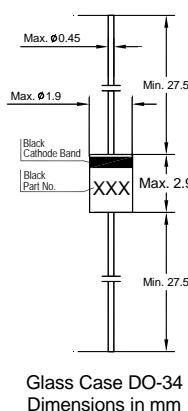


1SS254

Silicon Epitaxial Planar Switching Diode

Features

- Ultra-high speed
- High withstand voltage
- Low leakage and high voltage



Applications

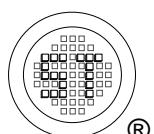
- High-speed switching

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

| Parameter | Symbol | Value | Unit |
|---|-------------|---------------|------------------|
| Peak Reverse Voltage | V_{RM} | 40 | V |
| Reverse Voltage | V_R | 35 | V |
| Average Rectified Forward Current | $I_{F(AV)}$ | 110 | mA |
| Peak Forward Current | I_{FM} | 300 | mA |
| Non-Repetitive Peak Forward Surge Current ($t = 1 \text{ s}$) | I_{FSM} | 400 | mA |
| Junction Temperature | T_j | 175 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | - 65 to + 175 | $^\circ\text{C}$ |

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

| Parameter | Symbol | Max. | Unit |
|--|-----------|------|---------------|
| Forward Voltage at $I_F = 100 \text{ mA}$ | V_F | 1.2 | V |
| Reverse Current at $V_R = 35 \text{ V}$ | I_R | 0.5 | μA |
| Total Capacitance at $V_R = 0.5 \text{ V}, f = 1 \text{ MHz}$ | C_{tot} | 3 | pF |
| Reverse Recovery Time at $I_F = 10 \text{ mA}, V_R = 6 \text{ V}$ | t_{rr} | 4 | ns |



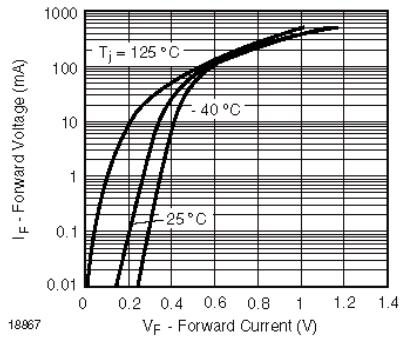


Figure 1. Typical Forward Voltage Forward Current at Various Temperatures

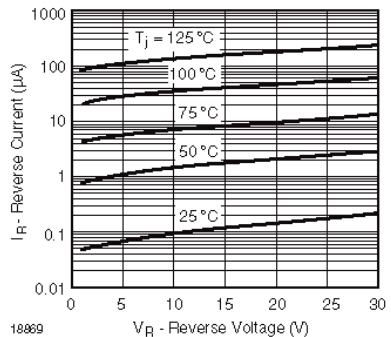


Figure 3. Typical Variation of Reverse Current at Various Temperatures

Fig.3- Capacitance Vs. Reverse voltage

