

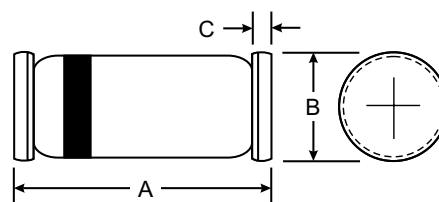


### Features

- Fast Switching Speed
- Suitable for General Logic Applications
- High Conductance

### Mechanical Data

- Case: SOD-80/LL34, Glass
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.05 grams (approx.)



| LL34/ SOD-80         |      |      |
|----------------------|------|------|
| Dim                  | Min  | Max  |
| A                    | 3.30 | 3.70 |
| B                    | 1.30 | 1.60 |
| C                    | 0.28 | 0.50 |
| All Dimensions in mm |      |      |

### Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

| Parameter                       | Test Conditions    | Type | Symbol    | Value      | Unit             |
|---------------------------------|--------------------|------|-----------|------------|------------------|
| Repetitive peak reverse voltage |                    |      | $V_{RRM}$ | 35         | V                |
| Reverse voltage                 |                    |      | $V_R$     | 25         | V                |
| Peak forward surge current      | $t_p=1\mu\text{s}$ |      | $I_{FSM}$ | 2          | A                |
| Repetitive peak forward current |                    |      | $I_{FRM}$ | 500        | mA               |
| Forward current                 |                    |      | $I_F$     | 300        | mA               |
| Average forward current         | $V_R=0$            |      | $I_{FAV}$ | 150        | mA               |
| Power dissipation               |                    |      | $P_V$     | 500        | mW               |
| Junction temperature            |                    |      | $T_j$     | 175        | $^\circ\text{C}$ |
| Storage temperature range       |                    |      | $T_{stg}$ | -65...+175 | $^\circ\text{C}$ |

### Maximum Thermal Resistance $T_j = 25^\circ\text{C}$

| Parameter        | Test Conditions             | Symbol     | Value | Unit |
|------------------|-----------------------------|------------|-------|------|
| Junction ambient | on PC board 50mmx50mmx1.6mm | $R_{thJA}$ | 500   | K/W  |

### Electrical Characteristics $T_j = 25^\circ\text{C}$

| Parameter             | Test Conditions                                             | Type | Symbol     | Min | Typ | Max | Unit          |
|-----------------------|-------------------------------------------------------------|------|------------|-----|-----|-----|---------------|
| Forward voltage       | $I_F=30\text{mA}$                                           |      | $V_F$      |     |     | 1   | V             |
| Reverse current       | $V_R=25\text{V}$                                            |      | $I_R$      |     |     | 100 | nA            |
|                       | $V_R=25\text{V}, T_j=150^\circ\text{C}$                     |      | $I_R$      |     |     | 100 | $\mu\text{A}$ |
| Breakdown voltage     | $I_R=5\mu\text{A}, t_p/T=0.01, t_p=0.3\text{ms}$            |      | $V_{(BR)}$ | 35  |     |     | V             |
| Diode capacitance     | $V_R=0, f=1\text{MHz}, V_{HF}=50\text{mV}$                  |      | $C_D$      |     |     | 4   | pF            |
| Reverse recovery time | $I_F=I_R=10\text{mA}, i_R=1\text{mA}$                       |      | $t_{rr}$   |     |     | 4   | ns            |
|                       | $I_F=10\text{mA}, V_R=6\text{V}, i_R=0.1I_R, R_L=100\Omega$ |      | $t_{rr}$   |     |     | 2   | ns            |

## Characteristics ( $T_j = 25^\circ\text{C}$ unless otherwise specified)

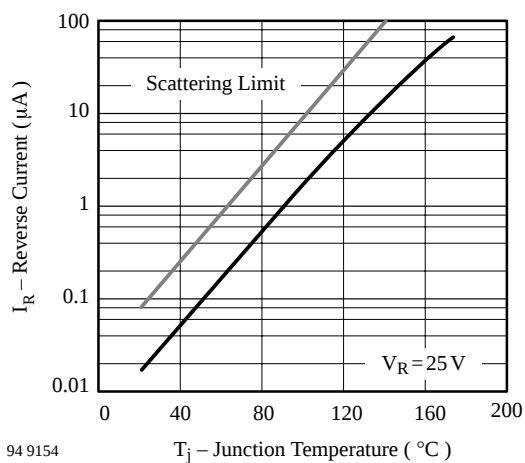


Figure 1. Reverse Current vs. Junction Temperature

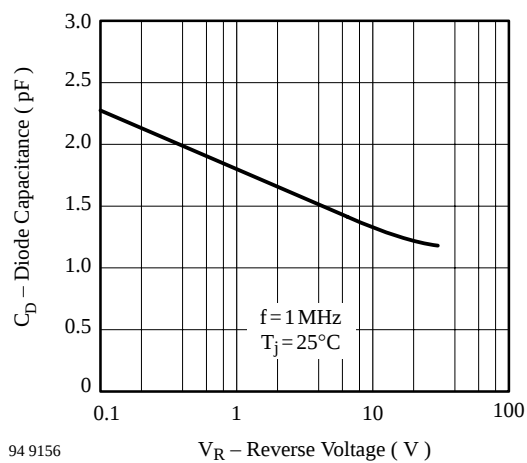


Figure 3. Diode Capacitance vs. Reverse Voltage

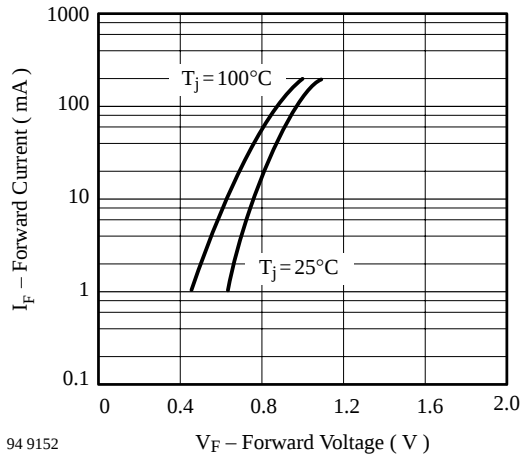


Figure 2. Forward Current vs. Forward Voltage