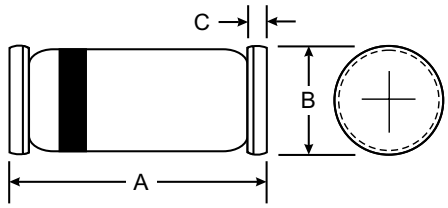
# LL47

## SURFACE MOUNT SMALL SIGNAL SCHOTTKY DIODES

**VOLTAGE RANGE: 20 V**
**CURRENT: 350mA**

## Features

- For general purpose applications
- These diodes feature very low turn-on voltage and fast switching.These devices are protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges.




| 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** | | |

## Mechanical Data

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

RoHS COMPLIANT

## Maximum Ratings $T_A$ = 25°C unless otherwise specified

| Parameter | Symbol | Value | Unit |
|---|---|---|---|
| Repetitive Peak Reverse Voltage | $V_{RRM}$ | 20 | V |
| Continuous Forward Current | $I_F$ | 350 | mA |
| Repetitive Peak Forward Current at tp < 1s, | $I_{FRM}$ | 1 | A |
| Forward Surge Current at tp < 10 ms, | $I_{FSM}$ | 7.5 | A |
| Power Dissipation ,Ta = 65 °C | $P_D$ | 330 | mW |
| Thermal Resistance Junction to Ambient Air | $R_{\theta JA}$ | 300 | °C/W |
| Junction Temperature | $T_J$ | 125 | °C |
| Ambient Operating Temperature Range | Ta | -65 to + 125 | °C |
| Storage temperature range | $T_S$ | -65 to + 150 | °C |

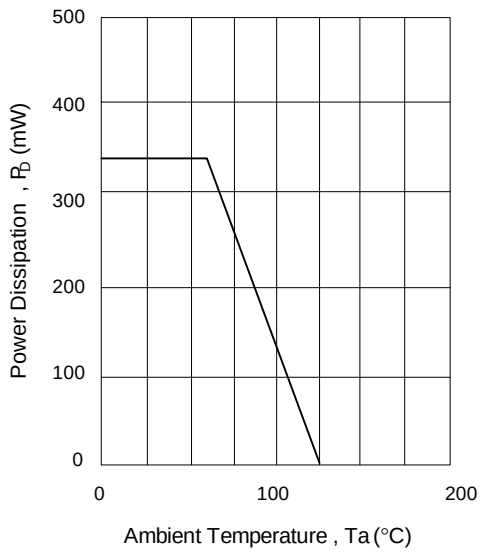
Note: (1) Valid provided that leads at a distance of 4mm from case are kept at ambient temperature.

## Electrical Characteristics ($T_J$ = 25°C unless otherwise noted)

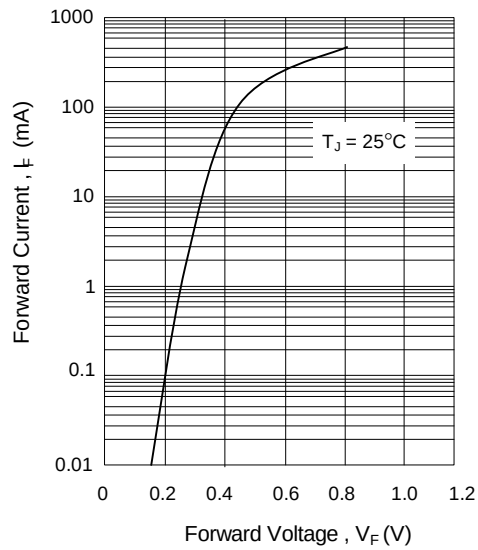
| Parameter | Symbol | Test Condition | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Reverse Breakdown Voltage | $V_{(BR)R}$ | $I_R$ = 100 µA (pulsed) | 40 | - | - | V |
| Reverse Current<br>Pulse Test tp <300µs , δ <2% | $I_R$ | $V_R$ = 10 V<br>$V_R$ = 20 V<br>$V_R$ = 40 V | -<br>-<br>- | -<br>-<br>- | 2<br>5<br>25 | µA |
| Forward Voltage<br>Pulse Test tp <300µs , δ <2% | $V_F$ | $I_F$ = 1mA<br>$I_F$ = 10mA<br>$I_F$ = 30mA<br>$I_F$ = 100mA<br>$I_F$ = 500mA | -<br>-<br>-<br>-<br>- | -<br>-<br>-<br>-<br>- | 0.30<br>0.40<br>0.50<br>0.75<br>0.90 | V |
| Diode Capacitance | Cd | $V_R$ = 1V, f = 1MHz | - | 12 | - | pF |

## RATING AND CHARACTERISTIC CURVES (LL47 )

**Admissible Power Dissipation vs. Ambient Temperature**




**Typical Forward Characteristicss**




**Typical Reverse Characteristics**