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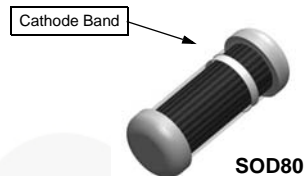
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# 1N457A / FDLL457A Small Signal Diode



| COLOR BAND MARKING |          |
|--------------------|----------|
| DEVICE             | 1ST BAND |
| FDLL457A           | WHITE    |

## Absolute Maximum Ratings<sup>(1)</sup>

Stresses exceeding the absolute maximum ratings may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The absolute maximum ratings are stress ratings only. Values are at  $T_A = 25^\circ\text{C}$  unless otherwise noted.

| Symbol      | Parameter                           | Value                           | Units            |
|-------------|-------------------------------------|---------------------------------|------------------|
| $V_{RRM}$   | Maximum Repetitive Reverse Voltage  | 70                              | V                |
| $I_{F(AV)}$ | Average Rectified Forward Current   | 200                             | mA               |
| $I_{FSM}$   | Non-repetitive Peak Forward Current | Pulse Width = 1.0 s             | A                |
|             |                                     | Pulse Width = 1.0 $\mu\text{s}$ | A                |
| $T_{STG}$   | Storage Temperature Range           | -65 to +200                     | $^\circ\text{C}$ |
| $T_J$       | Operating Junction Temperature      | 175                             | $^\circ\text{C}$ |

### Note:

- These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.  
Measured on 8.3ms single half-sine wave or equivalent square wave. Duty cycle = 4 pulses per minute maximum.

## Thermal Characteristics

| Symbol          | Parameter                               | Value | Units            |
|-----------------|---|-------|------------------|
| $P_D$           | Power Dissipation                       | 500   | mW               |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient | 350   | $^\circ\text{C}$ |

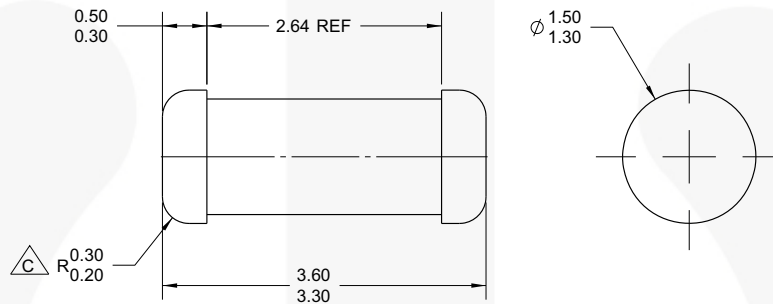
## Electrical Characteristics

Values are at  $T_A = 25^\circ\text{C}$  unless otherwise noted.

| Symbol | Parameter         | Conditions                                    | Min. | Max. | Units         |
|--------|-------------------|---|------|------|---------------|
| $V_R$  | Breakdown Voltage | $I_R = 100 \mu\text{A}$                       | 85   |      | V             |
| $V_F$  | Forward Voltage   | $I_F = 10 \text{ mA}$                         |      | 1.0  | V             |
|        |                   | $I_F = 100 \text{ mA}$                        |      | 1.0  | V             |
| $I_R$  | Reverse Leakage   | $V_R = 60 \text{ V}$                          |      | 25   | nA            |
|        |                   | $V_R = 60 \text{ V}, T_A = 150^\circ\text{C}$ |      | 5.0  | $\mu\text{A}$ |
| $C_T$  | Total Capacitance | $V_R = 0, f = 1.0 \text{ MHz}$                |      | 6.0  | pF            |

# Physical Dimensions

## SOD-80



NOTES: UNLESS OTHERWISE SPECIFIED

A) PACKAGE STANDARD REFERENCE:  
JEDEC DO-213, VARIATION AC.

B) ALL DIMENSIONS ARE IN MILLIMETERS.

C) CORNER RADIUS IS OPTIONAL.

D) DRAWING FILE NAME: SOD80A REV01

**Figure 1. 2-TERMINAL, SOD-80, JEDEC DO-213AC, MINI-MELF**

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| BitSiC™   | Global Power Resource™                         | Programmable Active Droop™  | TinyBuck™   |
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