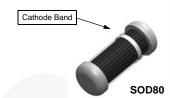


**April 2013** 

# 1N457A / FDLL457A Small Signal Diode



COLOR BAND MARKING

DEVICE 1ST BAND

FDLL457A WHITE

# **Absolute Maximum Ratings**(1)

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 <sub>RRM</sub>   | Maximum Repetitive Reverse Voltage  |                      | 70          | V     |
| I <sub>F(AV)</sub> | Average Rectified Forward Current   |                      | 200         | mA    |
| I <sub>FSM</sub>   | Non-repetitive Peak Forward Current | Pulse Width = 1.0 s  | 1.0         | Α     |
|                    | Non-repetitive Feak Forward Current | Pulse Width = 1.0 μs | 4.0         | Α     |
| T <sub>STG</sub>   | Storage Temperature Range           |                      | -65 to +200 | °C    |
| T <sub>J</sub>     | Operating Junction Temperature      | 175                  | °C          |       |

# Note:

1. 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   | °C    |

# **Electrical Characteristics**

Values are at T<sub>A</sub> = 25°C unless otherwise noted.

| Symbol         | Parameter         | Conditions                                    | Min. | Max. | Units |
|----------------|-------------------|---|------|------|-------|
| V <sub>R</sub> | Breakdown Voltage | I <sub>R</sub> = 100 μA                       | 85   |      | V     |
| V <sub>F</sub> | Forward Voltage   | I <sub>F</sub> = 10 mA                        |      | 1.0  | V     |
|                |                   | I <sub>F</sub> = 100 mA                       |      | 1.0  | V     |
| I <sub>R</sub> | Reverse Leakage   | V <sub>R</sub> = 60 V                         |      | 25   | nA    |
|                |                   | V <sub>R</sub> = 60 V, T <sub>A</sub> = 150°C |      | 5.0  | μΑ    |
| C <sub>T</sub> | Total Capacitance | $V_R = 0$ , $f = 1.0 \text{ MHz}$             |      | 6.0  | pF    |

1

# **Physical Dimensions**

# **SOD-80**

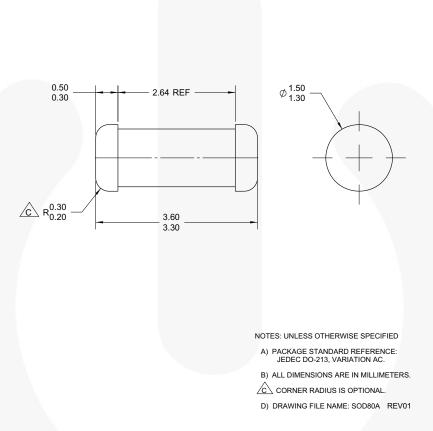


Figure 1. 2-TERMINAL, SOD-80, JEDEC DO-213AC, MINI-MELF

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