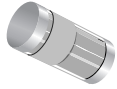
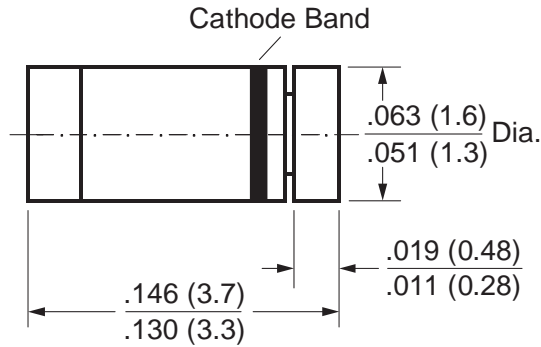


## Schottky Diode

**Reverse Voltage** 40V  
**Forward Current** 350mA



### MiniMELF (SOD-80C)



*Dimensions in inches and (millimeters)*

### Features

- For general purpose applications
- This diode features low turn-on voltage and high break-down voltage.
- This device is protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges.
- This diode is also available in the DO-35 case with type designation BAT48.

### Mechanical Data

**Case:** MiniMELF Glass Case (SOD-80C)

**Weight:** approx. 0.05g

**Cathode Band Color:** Green

**Packaging Codes/Options:**

D1/10K per 13" reel (8mm tape), 20K/box

D2/2.5K per 7" reel (8mm tape), 20K/box

### Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

| Parameters  | Symbol          | Value              | Unit                 |
|---|-----------------|--------------------|----------------------|
| Repetitive Peak Reverse Voltage   | $V_{RRM}$       | 40                 | V                    |
| Forward Continuous Current at $T_{amb} = 25^{\circ}\text{C}$  | $I_F$           | 350 <sup>(1)</sup> | mA                   |
| Repetitive Peak Forward Current<br>at $t_p < 1\text{s}$ , $\delta < 0.5$ , $T_{amb} = 25^{\circ}\text{C}$ | $I_{FRM}$       | 1.0 <sup>(1)</sup> | A                    |
| Surge Forward Current at $t_p < 10\text{ms}$ , $T_{amb} = 25^{\circ}\text{C}$                             | $I_{FSM}$       | 7.5 <sup>(1)</sup> | A                    |
| Power Dissipation <sup>(1)</sup> at $T_{amb} = 80^{\circ}\text{C}$  | $P_{tot}$       | 330 <sup>(1)</sup> | mW                   |
| Thermal Resistance Junction to Ambient Air  | $R_{\theta JA}$ | 300 <sup>(1)</sup> | $^{\circ}\text{C/W}$ |
| Junction Temperature  | $T_j$           | 125                | $^{\circ}\text{C}$   |
| Ambient Operating Temperature Range   | $T_{amb}$       | -65 to +125        | $^{\circ}\text{C}$   |
| Storage Temperature Range   | $T_s$           | -65 to +150        | $^{\circ}\text{C}$   |

**Note:**

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

**Electrical Characteristics** ( $T_J = 25^\circ\text{C}$  unless otherwise noted)

| Parameter   | Symbol           | Test Condition                                | Min | Typ | Max  | Unit          |
|---|------------------|---|-----|-----|------|---------------|
| Reverse Breakdown Voltage   | $V_{(BR)R}$      | 100 $\mu\text{A}$ pulses                      | 40  | —   | —    | V             |
| Leakage Current<br>Pulse Test $t_p = 300\mu\text{s}$ , $\delta < 2\%$ | $I_R$            | $V_R = 10\text{V}$                            | —   | —   | 2    | $\mu\text{A}$ |
|   |                  | $V_R = 10\text{V}$ , $T_J = 60^\circ\text{C}$ | —   | —   | 15   |               |
|   |                  | $V_R = 20\text{V}$                            | —   | —   | 5    |               |
|   |                  | $V_R = 20\text{V}$ , $T_J = 60^\circ\text{C}$ | —   | —   | 25   |               |
|   |                  | $V_R = 40\text{V}$                            | —   | —   | 25   |               |
| Forward Voltage<br>Pulse Test $t_p < 300\mu\text{s}$ , $\delta < 2\%$ | $V_F$            | $I_F = 0.1\text{mA}$                          | —   | —   | 0.25 | V             |
|   |                  | $I_F = 1.0\text{mA}$                          | —   | —   | 0.30 |               |
|   |                  | $I_F = 10\text{mA}$                           | —   | —   | 0.40 |               |
|   |                  | $I_F = 50\text{mA}$                           | —   | —   | 0.50 |               |
|   |                  | $I_F = 200\text{mA}$                          | —   | —   | 0.75 |               |
|   |                  | $I_F = 500\text{mA}$                          | —   | —   | 0.90 |               |
| Capacitance   | $C_{\text{tot}}$ | $V_R = 1\text{V}$ , $f = 1\text{MHz}$         | —   | 12  | —    | pF            |

**Note:**

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