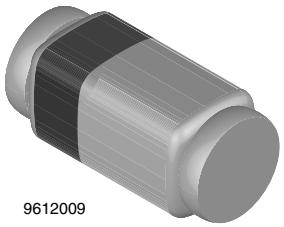
# Small Signal Schottky Diode

## Features

- Integrated protection ring against static discharge
- Very low forward voltage
- AEC-Q101 qualified
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC

RoHS COMPLIANT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## Applications

- Applications where a very low forward voltage is required

## Mechanical Data

**Case:** QuadroMELF SOD-80
**Weight:** approx. 34 mg
**Cathode band color:** black
**Packaging codes/options:**
GS18 / 10 k per 13" reel (8 mm tape), 10 k/box
GS08 / 2.5 k per 7" reel (8 mm tape), 12.5 k/box

## Parts Table

| Part | Type differentiation | Ordering code | Remarks |
|---|---|---|---|
| BAS285 | $V_R$ = 30 V | BAS285-GS18 or BAS285-GS08 | Tape and Reel |

## Absolute Maximum Ratings

$T_{amb}$ = 25 °C, unless otherwise specified

| Parameter | Test condition | Symbol | Value | Unit |
|---|---|---|---|---|
| Reverse voltage | | $V_R$ | 30 | V |
| Peak forward surge current | $t_p$ = 10 ms | $I_{FSM}$ | 5 | A |
| Repetitive peak forward current | $t_p \leq 1$ s | $I_{FRM}$ | 300 | mA |
| Forward current | | $I_F$ | 200 | mA |
| Average forward current | | $I_{FAV}$ | 200 | mA |

## Thermal Characteristics

$T_{amb}$ = 25 °C, unless otherwise specified

| Parameter | Test condition | Symbol | Value | Unit |
|---|---|---|---|---|
| Junction to ambient air | on PC board 50 mm x 50 mm x 1.6 mm | $R_{thJA}$ | 320 | K/W |
| Junction temperature | | $T_j$ | 125 | °C |
| Storage temperature range | | $T_{stg}$ | - 65 to + 150 | °C |

## Electrical Characteristics

$T_{amb}$ = 25 °C, unless otherwise specified

| Parameter | Test condition | Symbol | Min | Typ. | Max | Unit |
|---|---|---|---|---|---|---|
| Forward voltage | $I_F$ = 0.1 mA | $V_F$ | | | 240 | mV |
| | $I_F$ = 1 mA | $V_F$ | | | 320 | mV |
| | $I_F$ = 10 mA | $V_F$ | | | 400 | mV |
| | $I_F$ = 30 mA | $V_F$ | | | 500 | mV |
| | $I_F$ = 100 mA | $V_F$ | | | 800 | mV |
| Reverse current | $V_R$ = 25 V, $t_p$ = 300 µs | $I_R$ | | | 2.3 | µA |
| Diode capacitance | $V_R$ = 1 V, f = 1 MHz | $C_D$ | | | 10 | pF |

## Typical Characteristics

$T_{amb}$ = 25 °C, unless otherwise specified

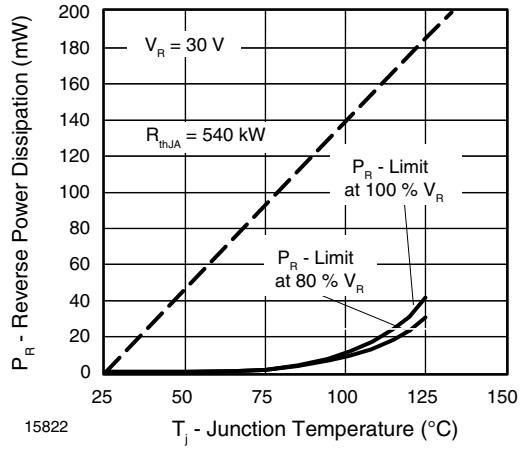


Figure 1. Max. Reverse Power Dissipation vs. Junction Temperature

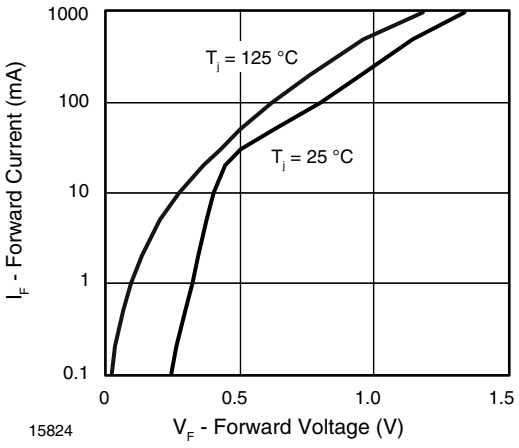


Figure 3. Forward Current vs. Forward Voltage

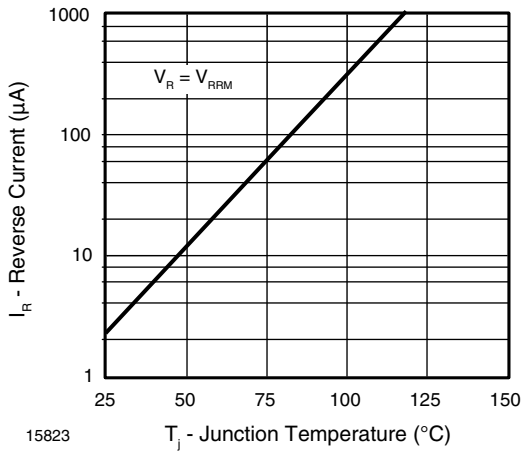


Figure 2. Reverse Current vs. Junction Temperature

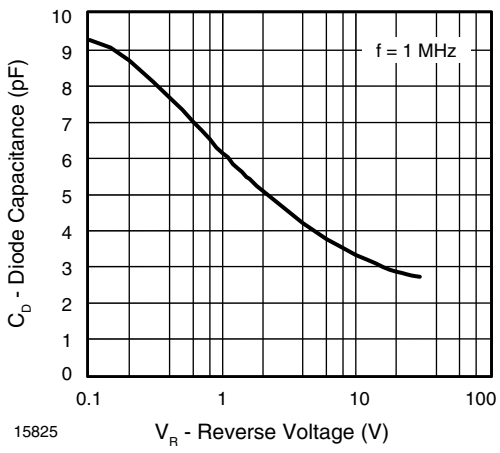


Figure 4. Diode Capacitance vs. Reverse Voltage



For technical questions within your region, please contact one of the following:
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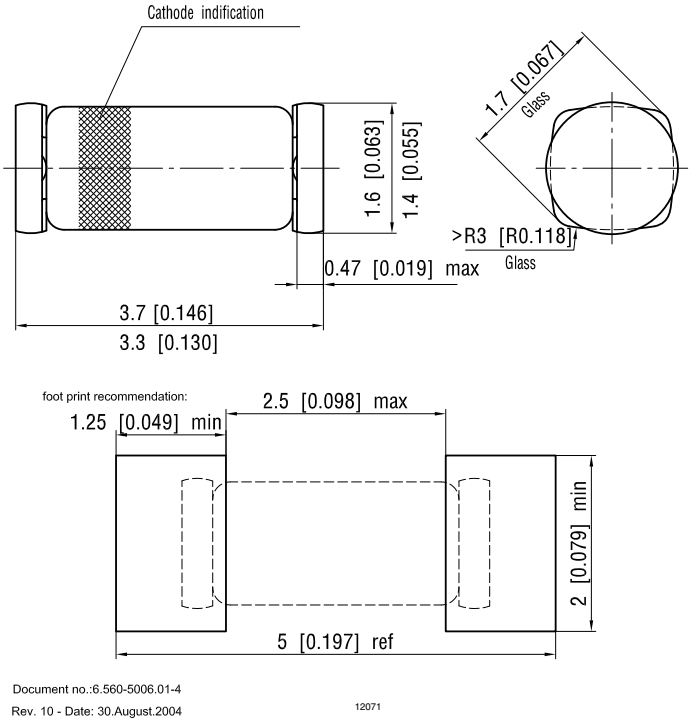
## **Package Dimensions** in millimeters (inches): **QuadroMELF SOD-80**

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