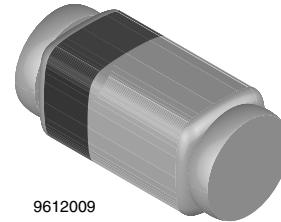


## Small Signal Schottky Diode

### 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



9612009

### 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   | Ordering code              | Type Marking | Remarks       |
|--------|----------------------------|--------------|---------------|
| BAS286 | BAS286-GS18 or BAS286-GS08 | -            | Tape and Reel |

### Absolute Maximum Ratings

$T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified

| Parameter                       | Test condition        | Symbol    | Value | Unit |
|---------------------------------|-----------------------|-----------|-------|------|
| Reverse voltage                 |                       | $V_R$     | 50    | V    |
| Peak forward surge current      | $t_p = 10\text{ ms}$  | $I_{FSM}$ | 5     | A    |
| Repetitive peak forward current | $t_p \leq 1\text{ s}$ | $I_{FRM}$ | 500   | mA   |
| Forward continuous current      |                       | $I_F$     | 200   | mA   |
| Average forward current         |                       | $I_{FAV}$ | 200   | mA   |

### Thermal Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified

| Parameter                                  | Test condition                        | Symbol     | Value         | Unit               |
|--|---------------------------------------|------------|---------------|--------------------|
| Thermal resistance junction to ambient air | on PC board<br>50 mm x 50 mm x 1.6 mm | $R_{thJA}$ | 320           | K/W                |
| Junction temperature                       |                                       | $T_j$      | 125           | $^{\circ}\text{C}$ |
| Storage temperature range                  |                                       | $T_{stg}$  | - 65 to + 150 | $^{\circ}\text{C}$ |

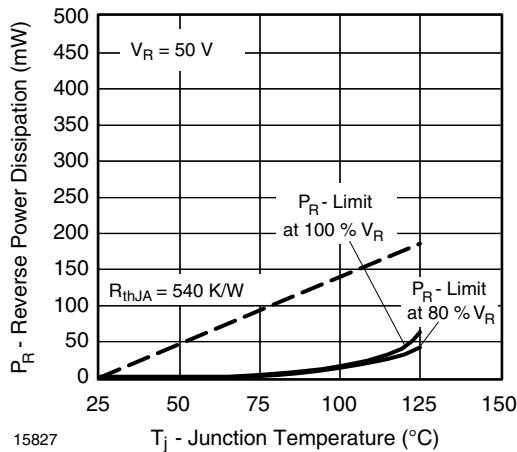
### Electrical Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified

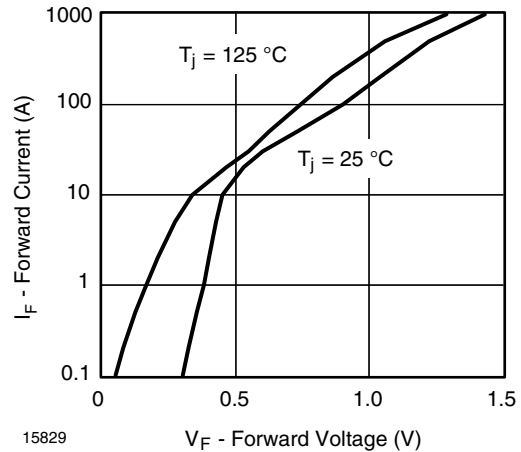
| Parameter         | Test condition                       | Symbol | Min | Typ. | Max | Unit          |
|-------------------|--------------------------------------|--------|-----|------|-----|---------------|
| Forward voltage   | $I_F = 0.1\text{ mA}$                | $V_F$  |     |      | 300 | mV            |
|                   | $I_F = 1\text{ mA}$                  | $V_F$  |     |      | 380 | mV            |
|                   | $I_F = 10\text{ mA}$                 | $V_F$  |     |      | 450 | mV            |
|                   | $I_F = 30\text{ mA}$                 | $V_F$  |     |      | 600 | mV            |
|                   | $I_F = 100\text{ mA}$                | $V_F$  |     |      | 900 | mV            |
| Reverse current   | $V_R = 40\text{ V}$                  | $I_R$  |     |      | 5   | $\mu\text{A}$ |
| Diode capacitance | $V_R = 1\text{ V}, f = 1\text{ MHz}$ | $C_D$  |     |      | 8   | pF            |

### Typical Characteristics

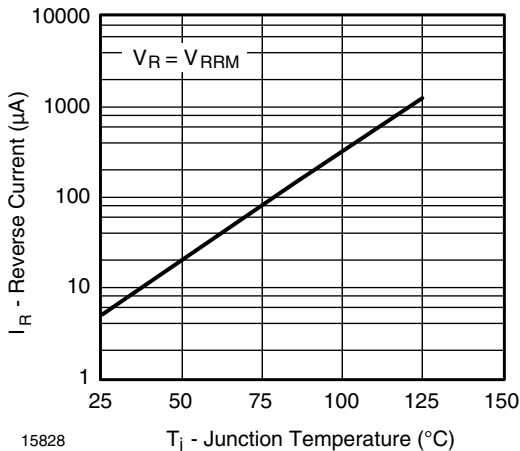
$T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified



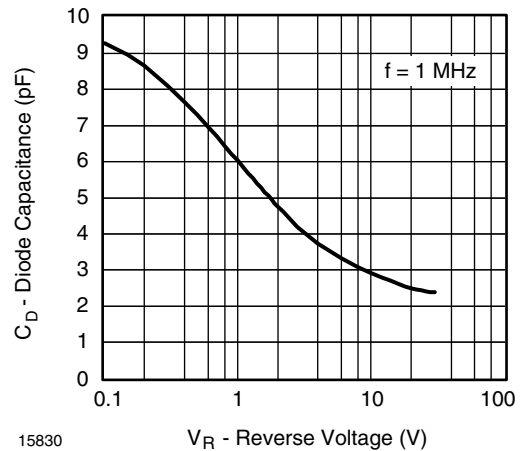
15827  
Figure 1. Max. Reverse Power Dissipation vs. Junction Temperature



15829  
Figure 3. Forward Current vs. Forward Voltage

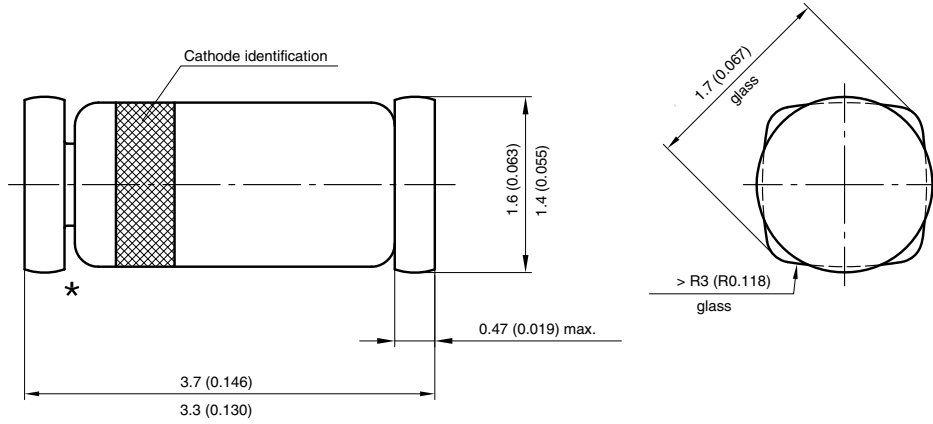


15828  
Figure 2. Reverse Current vs. Junction Temperature

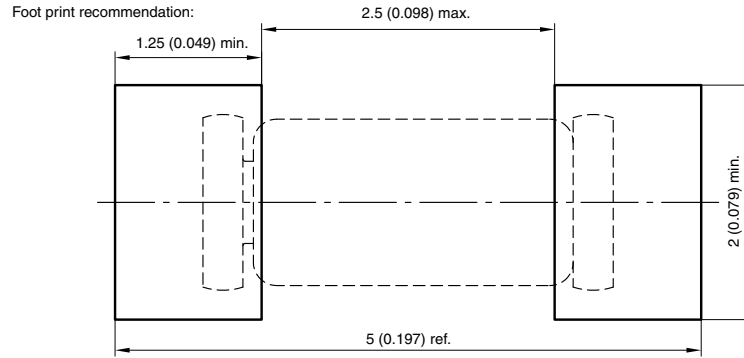


15830  
Figure 4. Diode Capacitance vs. Reverse Voltage

## Package Dimensions in millimeters (inches): QuadroMELF SOD-80



★ The gap between plug and glass can be either on cathode or anode side



Created - Date: 03.November.2003  
 Rev. 11 - Date: 07.June 2006  
 Document no.:6.560-5006.01-4  
 96 12071



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