

Small Signal Schottky Diode



FEATURES

- Integrated protection ring against static discharge
- Very low forward voltage
- AEC-Q101 qualified
- Material categorization:
For definitions of compliance please see www.vishay.com/doc?99912


RoHS
COMPLIANT

MECHANICAL DATA

Case: QuadroMELF SOD-80

Weight: approx. 34 mg

Cathode band color: black

Packaging codes/options:

GS18/10K per 13" reel (8 mm tape), 10K/box

GS08/2.5K per 7" reel (8 mm tape), 12.5K/box

APPLICATIONS

- Applications where a very low forward voltage is required

PARTS TABLE

| PART | ORDERING CODE | INTERNAL CONSTRUCTION | TYPE MARKING | REMARKS |
|--------|----------------------------|-----------------------|--------------|---------------|
| BAS286 | BAS286-GS18 or BAS286-GS08 | Single diode | - | 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 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 | μA |
| 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)

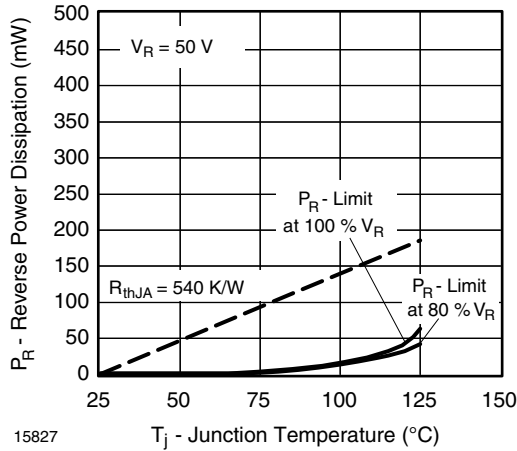


Fig. 1 - Max. Reverse Power Dissipation vs. Junction Temperature

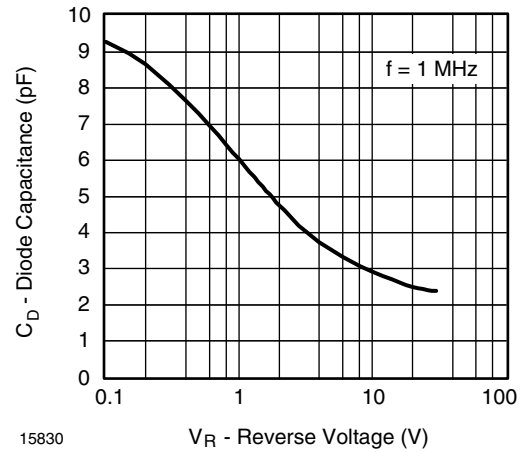


Fig. 4 - Diode Capacitance vs. Reverse Voltage

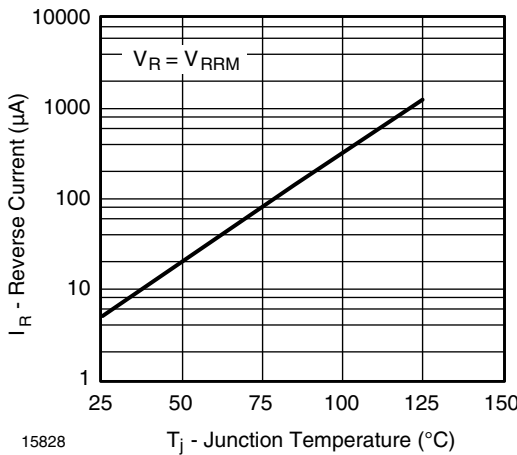


Fig. 2 - Reverse Current vs. Junction Temperature

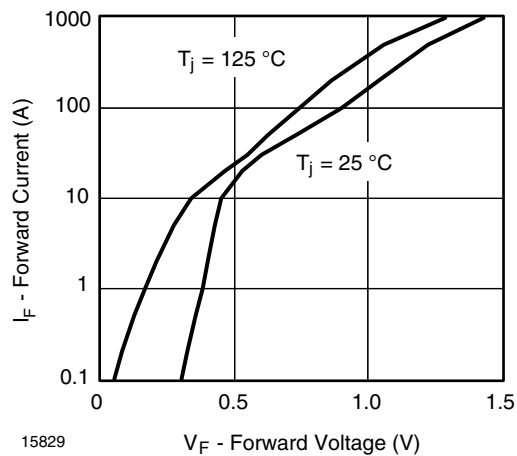
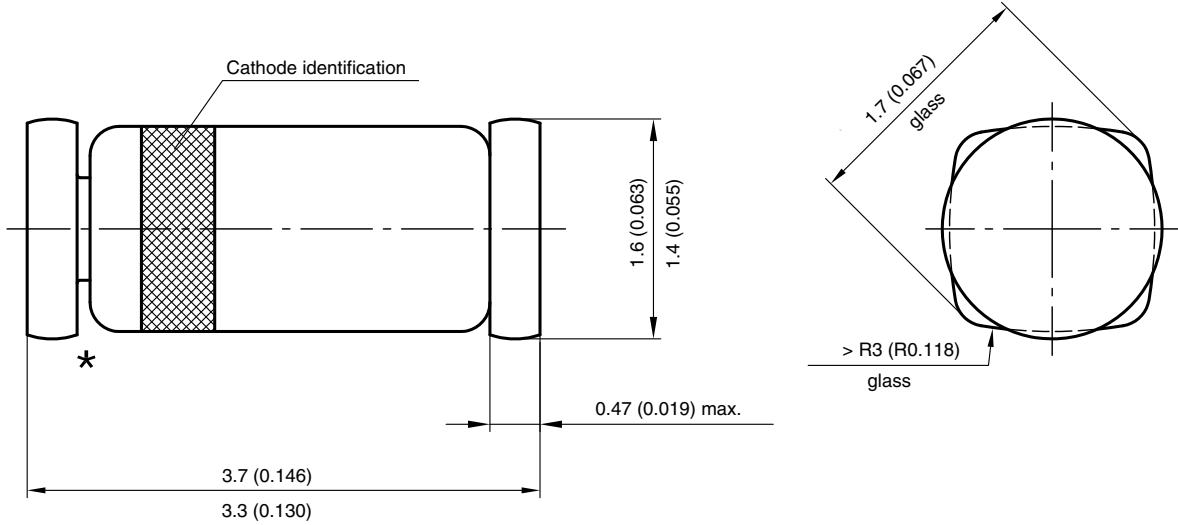


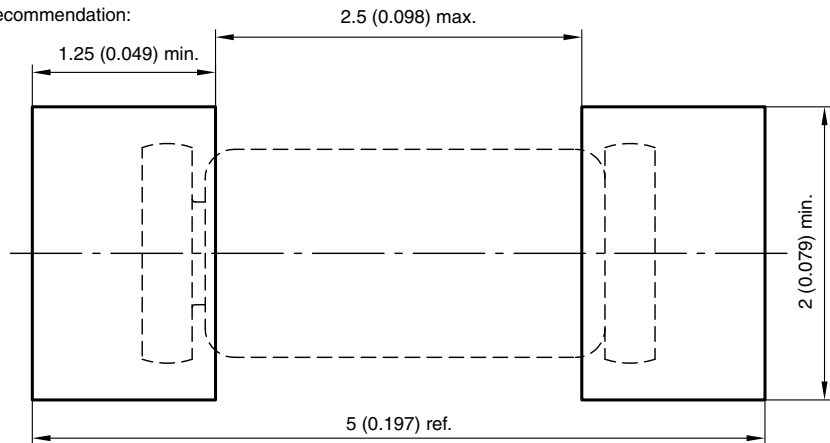
Fig. 3 - Forward Current vs. Forward Voltage

PACKAGE DIMENSIONS in millimeters (inches): **QuadroMELF SOD-80**



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

Foot print recommendation:



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 96 12071



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