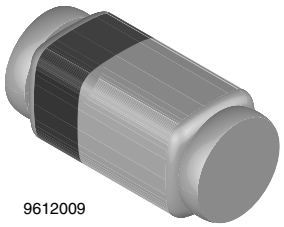
Small Signal Schottky Diodes

Features

- Integrated protection ring against static discharge
- Low capacitance
- Low leakage current
- Low forward voltage drop
- Very low switching time
- 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

- General purpose and switching Schottky barrier diode
- HF-Detector
- Protection circuit
- Diode for low currents with a low supply voltage
- Small battery charger
- Power supplies
- DC/DC converter for notebooks

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
BAS281	V_R = 40 V	BAS281-GS18 or BAS281-GS08	Tape and Reel
BAS282	V_R = 50 V	BAS282-GS18 or BAS282-GS08	Tape and Reel
BAS283	V_R = 60 V	BAS283-GS18 or BAS283-GS08	Tape and Reel

Absolute Maximum Ratings

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

Parameter	Test condition	Part	Symbol	Value	Unit
Reverse voltage		BAS281	V_R	40	V
		BAS282	V_R	50	V
		BAS283	V_R	60	V
Peak forward surge current	t_p = 1 s		I_{FSM}	500	mA
Repetitive peak forward current			I_{FRM}	150	mA
Forward current			I_F	30	mA

For technical questions within your region, please contact one of the following:
DiodesAmericas@vishay.com, DiodesAsia@vishay.com, DiodesEurope@vishay.com

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			330	mV
	I_F = 1 mA	V_F			410	mV
	I_F = 15 mA	V_F			1000	mV
Reverse current	$V_R = V_{Rmax}$	I_R			200	nA
Diode capacitance	V_R = 1 V, f = 1 MHz	C_D			1.6	pF

Typical Characteristics

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

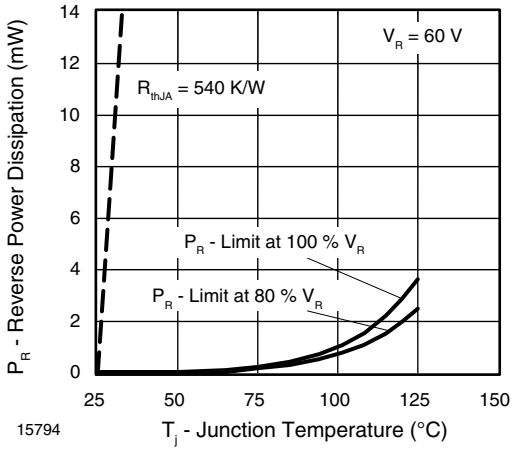

Figure 1. Max. Reverse Power Dissipation vs. Junction Temperature

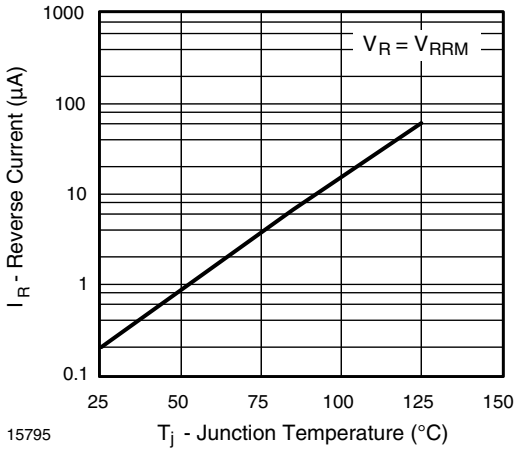

Figure 2. Reverse Current vs. Junction Temperature

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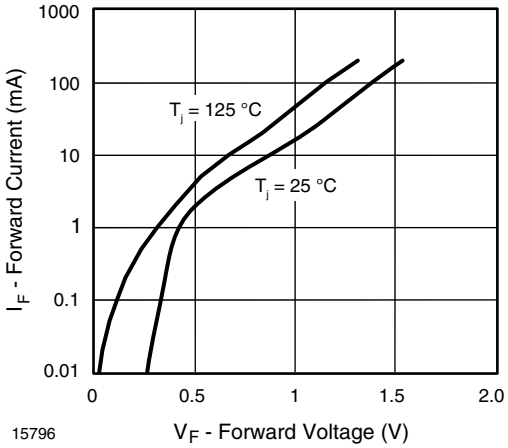


Figure 3. Forward Current vs. Forward Voltage

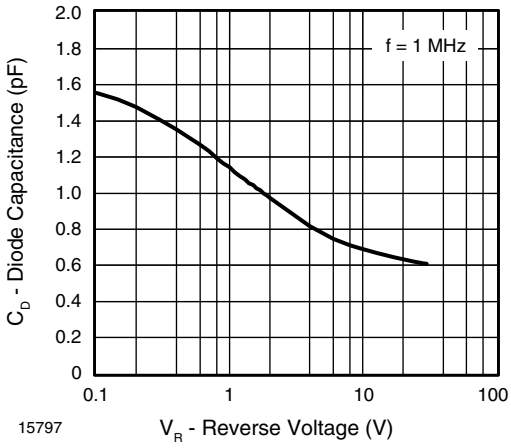
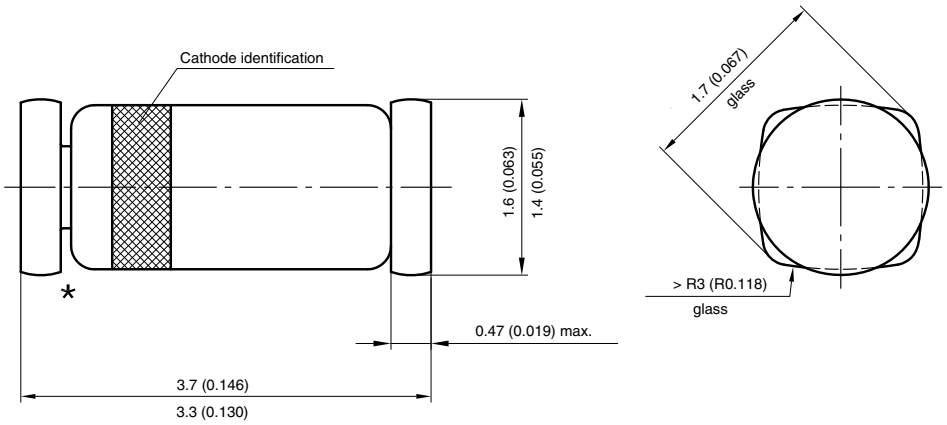
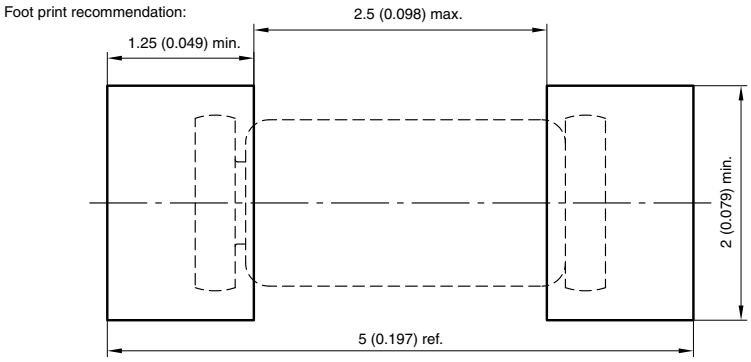


Figure 4. Diode Capacitance vs. Reverse Voltage

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



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



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