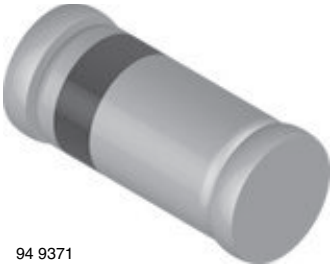
Small Signal Switching Diodes, Low Leakage Current

Features

- Silicon planar diodes
- Very low reverse current
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC

RoHS COMPLIANT



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Applications

Protection circuits, time delay circuits, peak follower circuits, logarithmic amplifiers

Mechanical Data

Case: MiniMELF SOD-80

Weight: approx. 31 mg

Cathode band color: black

Packaging codes/options:

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

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

Parts Table

Part	Type differentiation	Ordering code	Remarks
BAQ33	V_{RRM} = 40 V	BAQ33-GS18 or BAQ33-GS08	Tape and Reel
BAQ34	V_{RRM} = 70 V	BAQ34-GS18 or BAQ34-GS08	Tape and Reel
BAQ35	V_{RRM} = 140 V	BAQ35-GS18 or BAQ35-GS08	Tape and Reel

Absolute Maximum Ratings

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

Parameter	Test condition	Part	Symbol	Value	Unit
Reverse voltage		BAQ33	V_R	30	V
		BAQ34	V_R	60	V
		BAQ35	V_R	125	V
Peak forward surge current	t_p = 1 µs		I_{FSM}	2	A
Forward current			I_F	200	mA

Thermal Characteristics

T_{amb} = 25 °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}	500	K/W
Junction temperature		T_j	175	°C
Storage temperature range		T_{stg}	- 65 to + 175	°C

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

Electrical Characteristics

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

Parameter	Test condition	Part	Symbol	Min.	Typ.	Max.	Unit
Forward voltage	I_F = 100 mA		V_F			1	V
Reverse current	E ≤ 300 lx, rated V_R		I_R		1	3	nA
	E ≤ 300 lx, rated V_R, T_j = 125 °C		I_R			0.5	µA
	E ≤ 300 lx, V_R = 15 V	BAQ33	I_R		0.5	1	nA
	E ≤ 300l x, V_R = 30 V	BAQ34	I_R		0.5	1	nA
	E ≤ 300 lx, V_R = 60 V	BAQ35	I_R		0.5	1	nA
Breakdown voltage	I_R = 5 µA, t_p/T = 0.01, t_p= 0.3 ms	BAQ33	$V_{(BR)}$	40			V
	I_R = 5 µA, t_p/T = 0.01, t_p = 0.3 ms	BAQ34	$V_{(BR)}$	70			V
		BAQ35	$V_{(BR)}$	140			V
Diode capacitance	V_R = 0, f = 1 MHz		C_D			3	pF

Typical Characteristics

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

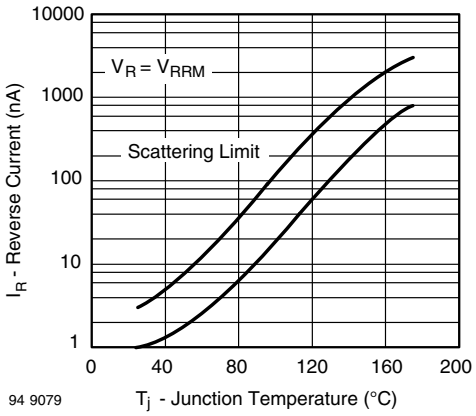

Figure 1. Reverse Current vs. Junction Temperature

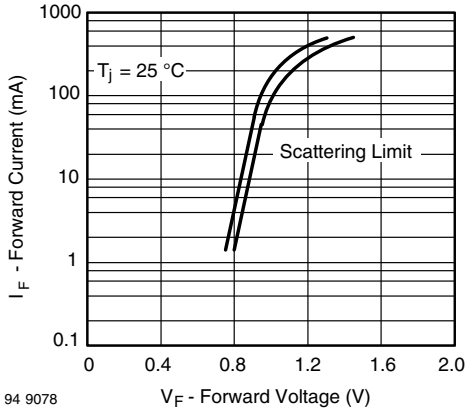

Figure 2. Forward Current vs. Forward Voltage

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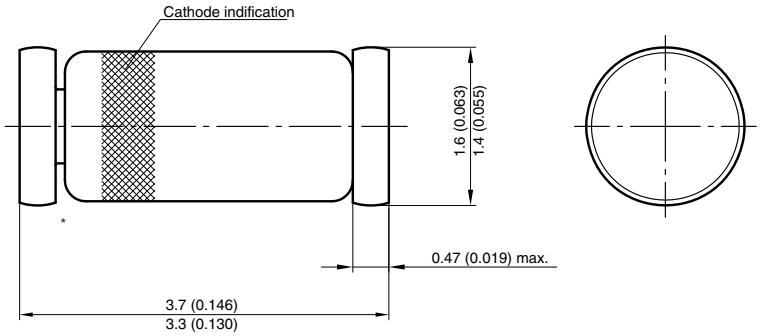
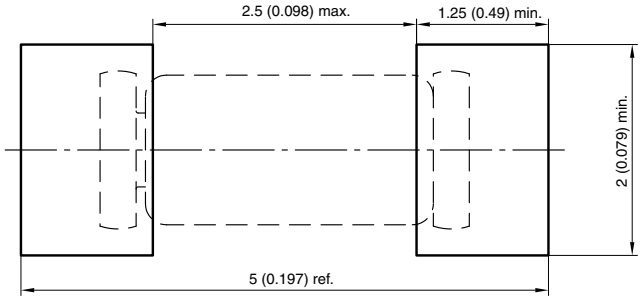
Package Dimensions in millimeters (inches): **MiniMELF SOD-80**



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

Foot print recommendation:



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