



# **Small Signal Switching Diode**

#### **Features**

- · Silicon planar diode
- · AEC-Q101 qualified
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC







### **Applications**

· General purpose



#### **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 GS08/2.5 k per 7" reel (8 mm tape), 12.5 k/box

#### **Parts Table**

Part	Ordering code	Type Marking	Remarks
BA604	BA604-GS18 or BA604-GS08	•	Tape and Reel

### **Absolute Maximum Ratings**

T<sub>amb</sub> = 25 °C, unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Peak reverse voltage, non repetitive		V <sub>RSM</sub>	80	V
Reverse voltage		V <sub>R</sub>	50	V
Peak forward surge current	t <sub>p</sub> = 1 μs	I <sub>FSM</sub>	2	Α
Repetitive peak forward current		I <sub>FRM</sub>	450	mA
Forward continuous current		l <sub>F</sub>	200	mA
Power dissipation		P <sub>V</sub>	500	mW

### **Thermal Characteristics**

T<sub>amb</sub> = 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 <sub>thJA</sub>	500	K/W
Junction lead	$T_L = constant$	R <sub>thJL</sub>	350	K/W
Junction temperature		T <sub>j</sub>	175	°C
Storage temperature range		T <sub>stg</sub>	- 55 to + 175	°C

## **Vishay Semiconductors**

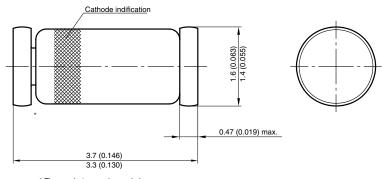


### **Electrical Characteristics**

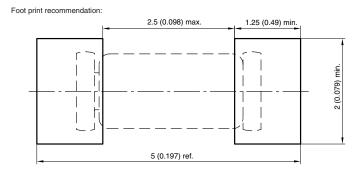
T<sub>amb</sub> = 25 °C, unless otherwise specified

Parameter	Test condition	Symbol	Min.	Тур.	Max.	Unit
Forward voltage	$I_F = 50 \text{ mA}$	$V_{F}$			1100	mV
Reverse current	V <sub>R</sub> = 50 V	I <sub>R</sub>			1	μΑ
	V <sub>R</sub> = 20 V	I <sub>R</sub>			50	nA
	$V_R = 20 \text{ V}, T_j = 150 ^{\circ}\text{C}$	I <sub>R</sub>			50	μΑ
Breakdown voltage	I <sub>R</sub> = 100 μA	$V_{(BR)}$	80			V
Reverse recovery time	$I_F = 10 \text{ mA}, I_R = 10 \text{ mA},$ $I_R = 1 \text{ mA}$	t <sub>rr</sub>			20	ns
Diode capacitance	V <sub>R</sub> = 0, f = 1 MHz	C <sub>D</sub>			4	pF

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



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



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