

## Small Signal Switching Diode



### FEATURES

- Silicon planar diode
- AEC-Q101 qualified
- Material categorization:  
For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS**  
COMPLIANT

### APPLICATIONS

- General purpose

### MECHANICAL DATA

**Case:** MiniMELF SOD-80

**Weight:** approx. 31 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), 2.5K/box

### PARTS TABLE

PART	ORDERING CODE	TYPE MARKING	INTERNAL CONSTRUCTION	REMARKS
BA604	BA604-GS18 or BA604-GS08	-	Single diode	Tape and reel

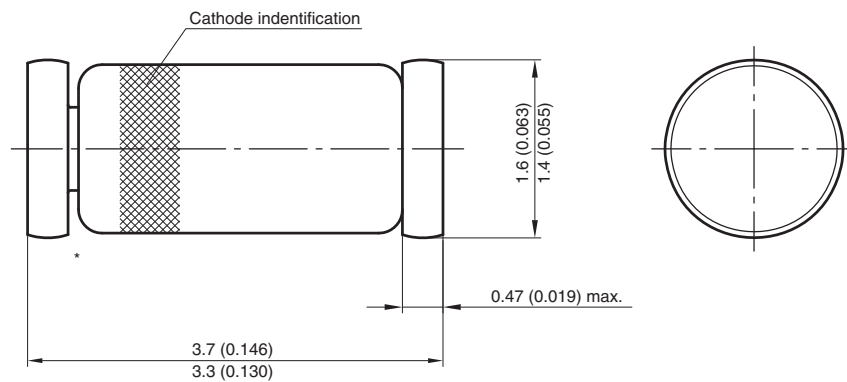
### ABSOLUTE MAXIMUM RATINGS ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Repetitive peak reverse voltage		$V_{RRM}$	80	V
Reverse voltage		$V_R$	50	V
Peak forward surge current	$t_p = 1\text{ }\mu\text{s}$	$I_{FSM}$	2	A
Repetitive peak forward current		$I_{FRM}$	450	mA
Forward continuous current		$I_F$	200	mA
Power dissipation		$P_{tot}$	500	mW

### THERMAL CHARACTERISTICS ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)

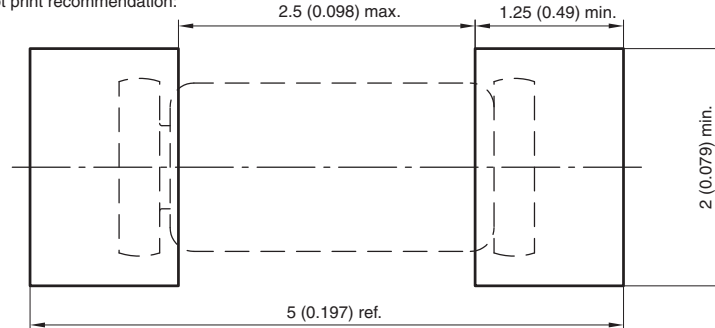
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to ambient air	On PC board 50 mm x 50 mm x 1.6	$R_{thJA}$	500	K/W
Thermal resistance junction to lead	$T_L = \text{constant}$	$R_{thJL}$	350	K/W
Junction temperature		$T_j$	175	$^{\circ}\text{C}$
Storage temperature range		$T_{stg}$	- 65 to + 175	$^{\circ}\text{C}$

<b>ELECTRICAL CHARACTERISTICS</b> ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward voltage	$I_F = 50\text{ mA}$	$V_F$			1100	mV
Reverse current	$V_R = 50\text{ V}$	$I_R$			1	$\mu\text{A}$
	$V_R = 20\text{ V}$	$I_R$			50	nA
	$V_R = 20\text{ V}, T_J = 150\text{ }^{\circ}\text{C}$	$I_R$			50	$\mu\text{A}$
Breakdown voltage	$I_R = 100\text{ }\mu\text{A}$	$V_{(BR)}$	80			V
Reverse recovery time	$I_F = 10\text{ mA}, I_R = 10\text{ mA}$ $i_R = 1\text{ mA}$	$t_{rr}$			20	ns
Diode capacitance	$V_R = 0\text{ V}, f = 1\text{ MHz}$	$C_D$			4	pF

**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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 96 12070



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