

Small Signal Switching Diode



FEATURES

- Silicon planar diode
- AEC-Q101 qualified
- Material categorization:
For definitions of compliance please see 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

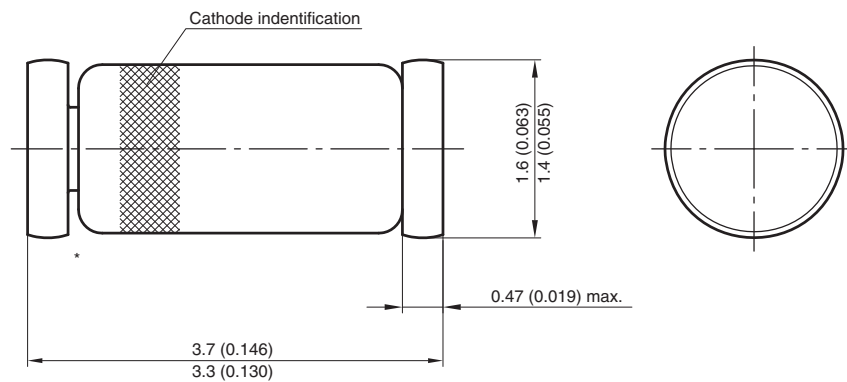
ABSOLUTE MAXIMUM RATINGS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)

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)

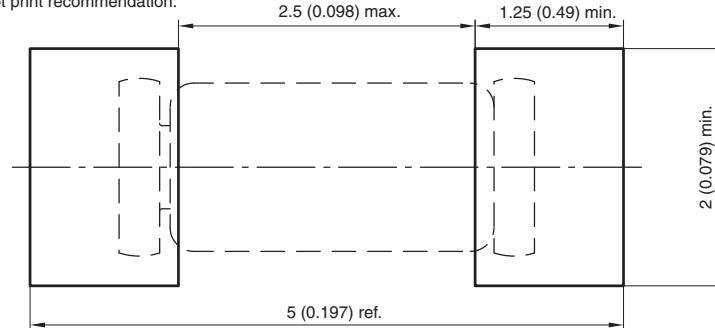
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to ambient air	On PC board 50 mm x 50 mm x 1.6	R_{thJA}	500	K/W
Thermal resistance junction to lead	$T_L = \text{constant}$	R_{thJL}	350	K/W
Junction temperature		T_j	175	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	- 65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

ELECTRICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, 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	μA
	$V_R = 20\text{ V}$	I_R			50	nA
	$V_R = 20\text{ V}, T_J = 150\text{ }^{\circ}\text{C}$	I_R			50	μA
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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Mouser Electronics

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Vishay:

[BA604-GS08](#) [BA604-GS18](#)