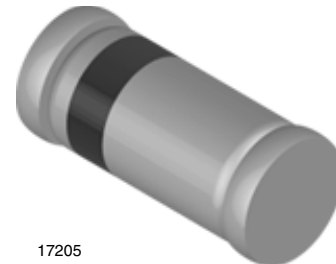


Small Signal Schottky Diode

Features

- For general purpose applications
- This diode features low turn-on voltage and high breakdown voltage
- This device is protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges
- This diode is also available in the DO-35 case with type designation BAT41
- AEC-Q101 qualified
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC


RoHS
COMPLIANT


17205

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
LL41	LL41-GS18 or LL41-GS08	-	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}	100	V
Forward continuous current		I_F	100 ¹⁾	mA
Repetitive peak forward current	$t_p < 1\text{ s}, \delta < 0.5$	I_{FRM}	350 ¹⁾	mA
Surge forward current	$t_p = 10\text{ ms}$	I_{FSM}	750 ¹⁾	mA
Power dissipation	$T_{amb} = 65\text{ }^{\circ}\text{C}$	P_{tot}	200 ¹⁾	mW

¹⁾ Valid provided that electrodes are kept at ambient temperature

Vishay Semiconductors

Thermal Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Thermal resistance junction to ambient air		R_{thJA}	300 ¹⁾	K/W
Junction temperature		T_j	125	$^{\circ}\text{C}$
Ambient operating temperature range		T_{amb}	- 65 to + 125	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	- 65 to + 150	$^{\circ}\text{C}$

¹⁾ Valid provided that electrodes are kept at ambient temperature

Electrical Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	Symbol	Min	Typ.	Max	Unit
Reverse breakdown voltage ²⁾	$I_R = 100\text{ }\mu\text{A}$	$V_{(BR)}$	100	110		V
Leakage current ²⁾	$V_R = 50\text{ V}, T_j = 25\text{ }^{\circ}\text{C}$	I_R			100	nA
	$V_R = 50\text{ V}, T_j = 100\text{ }^{\circ}\text{C}$	I_R			20	μA
Forward voltage ²⁾	$I_F = 1\text{ mA}$	V_F		400	450	mV
	$I_F = 200\text{ mA}$	V_F			1000	mV
Diode capacitance	$V_R = 1\text{ V}, f = 1\text{ MHz}$	C_D		2		pF

²⁾ Pulse test, $t_p = 300\text{ }\mu\text{s}$

Typical Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

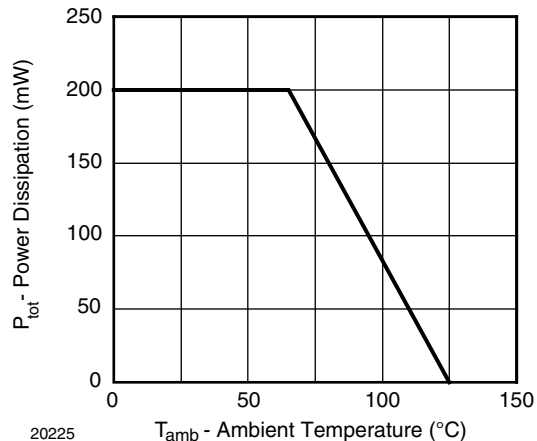


Figure 1. Admissible Power Dissipation vs. Ambient Temperature

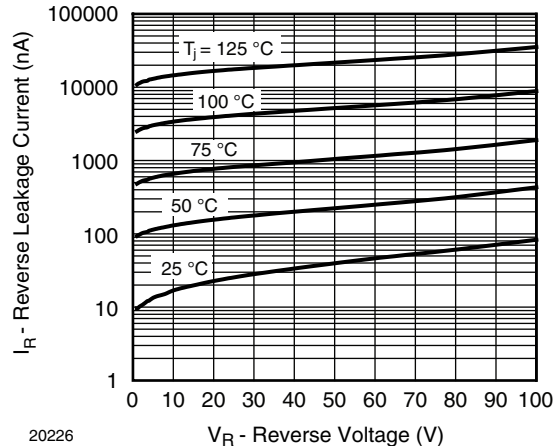


Figure 2. Typical Reverse Characteristics

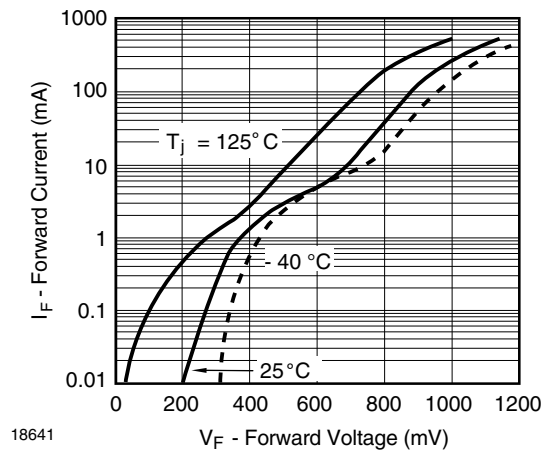


Figure 3. Typical Forward Characteristics

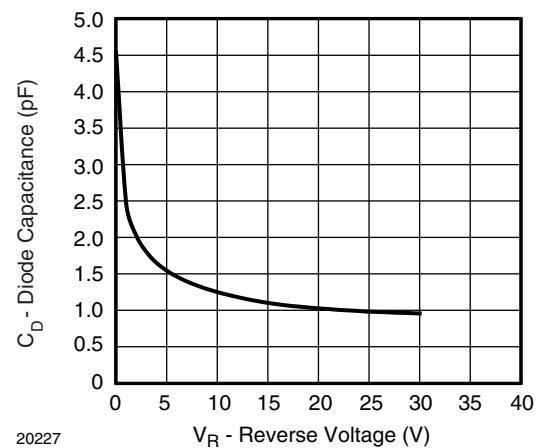
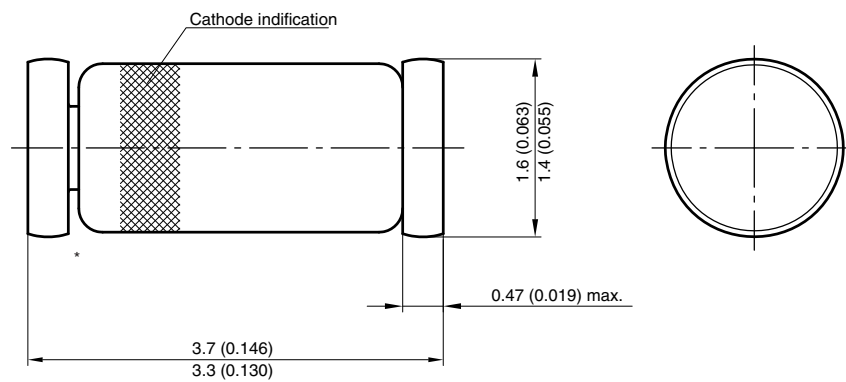


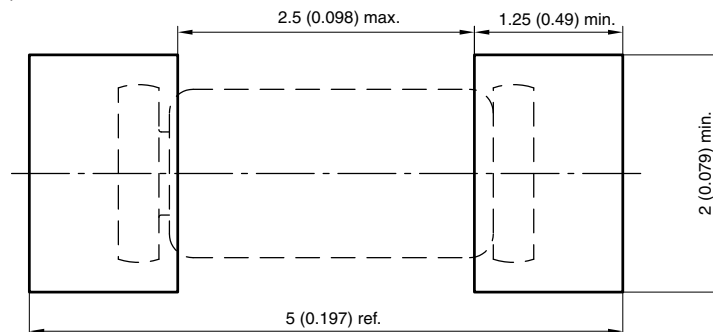
Figure 4. Typical Capacitance vs. Reverse Voltage

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



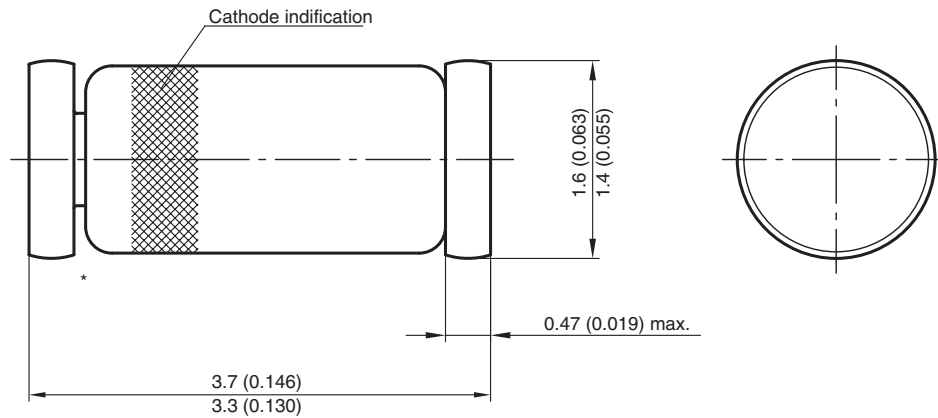
* The gap between plug and glass can be either on cathode or anode side

Foot print recommendation:



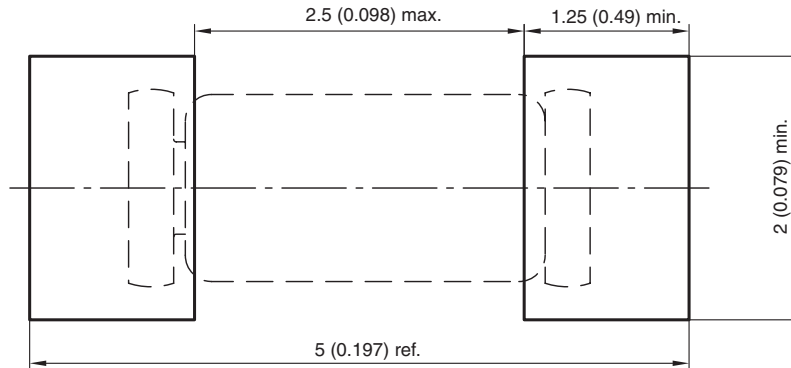
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96 12070

PACKAGE DIMENSIONS in millimeters (inches)



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

Foot print recommendation:



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