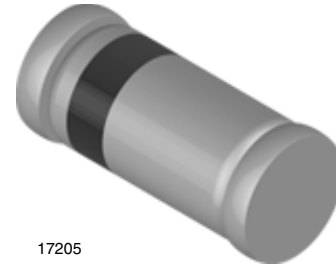
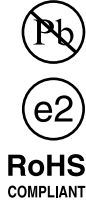


## Small Signal Schottky Diode

### 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



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 <sup>1)</sup>	mA
Repetitive peak forward current	$t_p < 1\text{ s}, \delta < 0.5$	$I_{FRM}$	350 <sup>1)</sup>	mA
Surge forward current	$t_p = 10\text{ ms}$	$I_{FSM}$	750 <sup>1)</sup>	mA
Power dissipation	$T_{amb} = 65\text{ }^{\circ}\text{C}$	$P_{tot}$	200 <sup>1)</sup>	mW

<sup>1)</sup> Valid provided that electrodes are kept at ambient temperature

### 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 <sup>1)</sup>	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	$^{\circ}\text{C}$

<sup>1)</sup> 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 <sup>2)</sup>	$I_R = 100\text{ }\mu\text{A}$	$V_{(BR)}$	100	110		V
Leakage current <sup>2)</sup>	$V_R = 50\text{ V}, T_j = 25\text{ }^{\circ}\text{C}$	$I_R$			100	nA
	$V_R = 50\text{ V}, T_j = 100\text{ }^{\circ}\text{C}$	$I_R$			20	$\mu\text{A}$
Forward voltage <sup>2)</sup>	$I_F = 1\text{ mA}$	$V_F$		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

<sup>2)</sup> Pulse test,  $t_p = 300\text{ }\mu\text{s}$

### Typical Characteristics

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

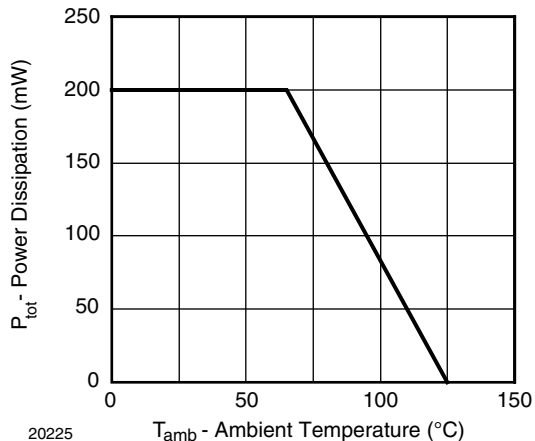


Figure 1. Admissible Power Dissipation vs. Ambient Temperature

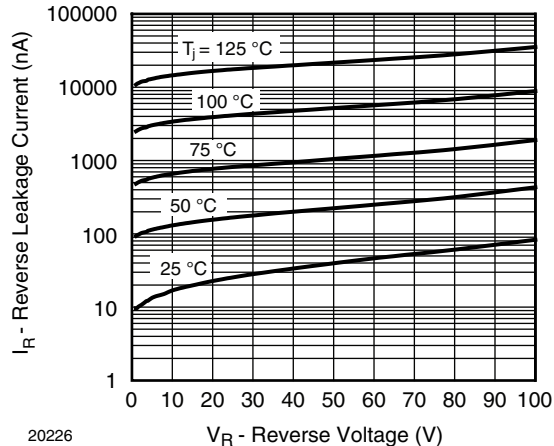
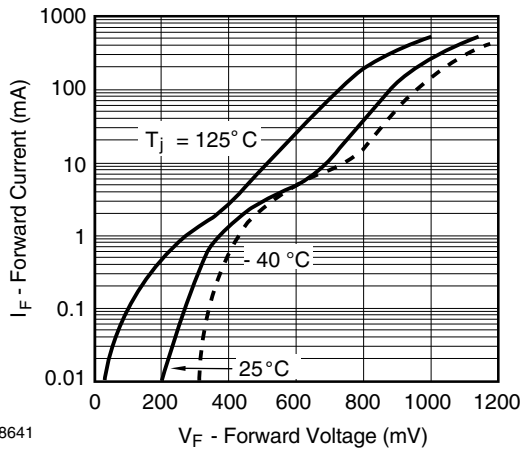
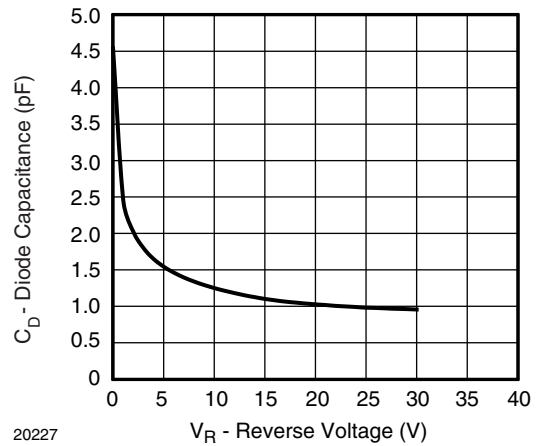


Figure 2. Typical Reverse Characteristics



18641

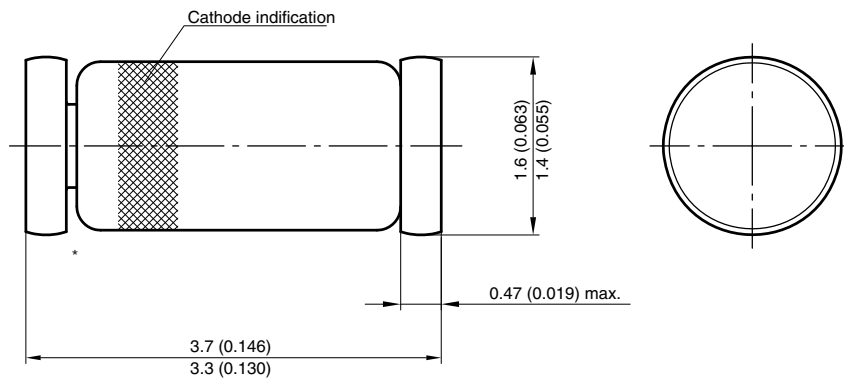
Figure 3. Typical Forward Characteristics



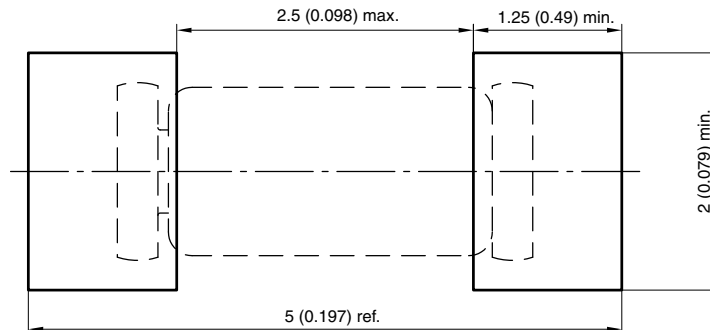
20227

Figure 4. Typical Capacitance vs. Reverse Voltage

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



Foot print recommendation:



Document no.:6.560-5005.01-4  
 Rev. 8 - Date: 07.June.2006  
 96 12070



## Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk and agree to fully indemnify and hold Vishay and its distributors harmless from and against any and all claims, liabilities, expenses and damages arising or resulting in connection with such use or sale, including attorneys fees, even if such claim alleges that Vishay or its distributor was negligent regarding the design or manufacture of the part. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.