

High Voltage General Purpose Diode

FDH400, FDLL400

Features

- This is a Pb-Free and Halide Free Device

ABSOLUTE MAXIMUM RATINGS

(Values are at $T_A = 25^\circ\text{C}$ unless otherwise noted.) (Notes 1 and 2)

Symbol	Parameter	Value	Unit
W_{IV}	Working Inverse Voltage	150	V
I_O	Average Rectified Forward Current	200	mA
I_F	DC Forward Current	500	mA
i_F	Recurrent Peak Forward Current	600	mA
I_{FSM}	Non-Repetitive Peak Forward Current	Pulse Width = 1.0 s	1.0
		Pulse Width = 1.0 μs	4.0
T_{STG}	Storage Temperature Range	-65 to +200	$^\circ\text{C}$
T_J	Operating Junction Temperature	175	$^\circ\text{C}$

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

- These ratings are based on a maximum junction temperature of 200°C .
- These are steady-state limits. onsemi should be consulted on applications involving pulsed or low-duty-cycle operations.

THERMAL CHARACTERISTICS

(Values are at $T_A = 25^\circ\text{C}$ unless otherwise noted.)

Symbol	Parameter	Max	Unit
		FDH / FDLL400	
P_D	Power Dissipation	500	mW
	Derate above 25°C	3.33	mW/ $^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	300	$^\circ\text{C}/\text{W}$

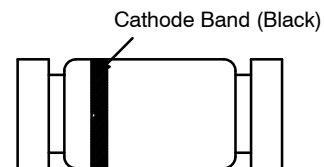


AXIAL LEAD
(DO-35)
CASE 017AG



MiniMELF/SOD-80
CASE 100AD

MARKING DIAGRAM



(1st band denotes cathode terminal and has wider width)

ORDERING INFORMATION

Device	Package	Shipping [†]
FDLL400	MiniMELF/SOD-80 (Pb-Free/Halide Free)	2500 / Tape & Reel
FDH400	AXIAL LEAD (Pb-Free / Halide Free)	5000 / Bulk
FDH400TR	AXIAL LEAD (Pb-Free / Halide Free)	10000 / Tape & Reel

[†]For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification Brochure, [BRD8011/D](#).

FDH400, FDLL400

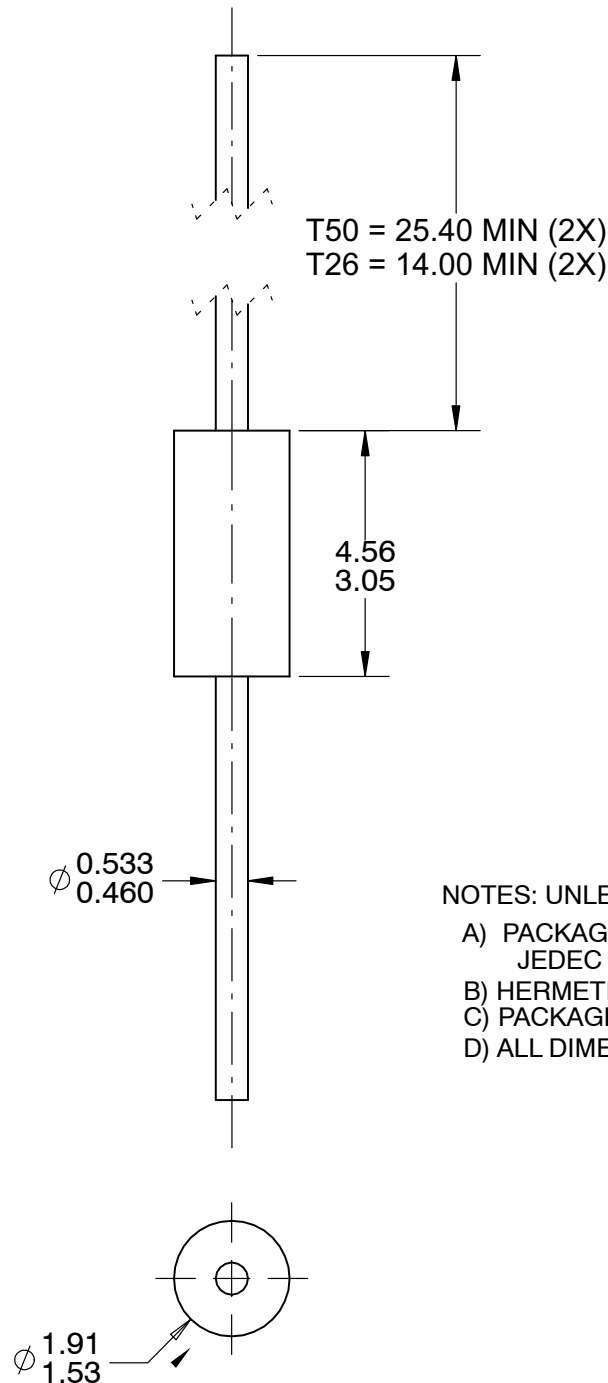
ELECTRICAL CHARACTERISTICS (Values are at $T_A = 25^\circ\text{C}$ unless otherwise noted.)

Symbol	Parameter	Test Conditions	Min	Max	Unit
V_R	Breakdown Voltage	$I_R = 100\ \mu\text{A}$	200	–	V
I_R	Reverse Leakage	$V_R = 150\ \text{V}$	–	100	nA
		$V_R = 150\ \text{V}, T_A = 150^\circ\text{C}$	–	100	μA
V_F	Forward Voltage	$I_F = 200\ \text{mA}$	–	1.0	V
		$I_F = 300\ \text{mA}$	–	1.1	
C_O	Diode Capacitance	$V_R = 0, f = 1.0\ \text{MHz}$	–	2.0	pF
t_{rr}	Reverse Recovery Time	$I_F = I_R = 30\ \text{mA}, I_{rr} = 3.0\ \text{mA}, R_L = 100\ \Omega$	–	50	ns

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

AXIAL LEAD
CASE 017AG
ISSUE O

DATE 31 AUG 2016



NOTES: UNLESS OTHERWISE SPECIFIED

- A) PACKAGE STANDARD REFERENCE:
JEDEC DO-204, VARIATION AH.
- B) HERMETICALLY SEALED GLASS PACKAGE.
- C) PACKAGE WEIGHT IS 0.137 GRAM.
- D) ALL DIMENSIONS ARE IN MILLIMETERS.

DOCUMENT NUMBER:	98AON13443G	Electronic versions are uncontrolled except when accessed directly from the Document Repository. Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red.
DESCRIPTION:	AXIAL LEAD	PAGE 1 OF 1

ON Semiconductor and  are trademarks of Semiconductor Components Industries, LLC dba ON Semiconductor or its subsidiaries in the United States and/or other countries. ON Semiconductor reserves the right to make changes without further notice to any products herein. ON Semiconductor makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does ON Semiconductor assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. ON Semiconductor does not convey any license under its patent rights nor the rights of others.

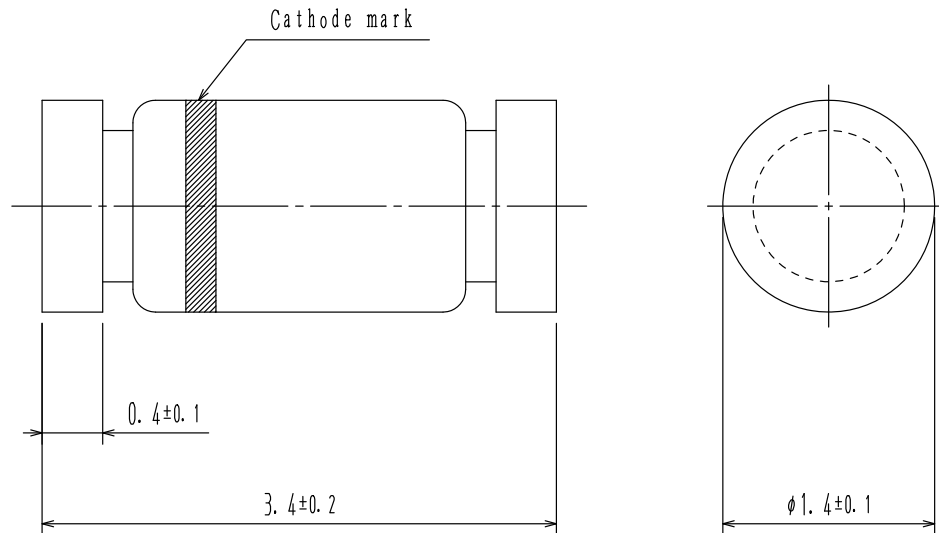
MECHANICAL CASE OUTLINE

PACKAGE DIMENSIONS



MiniMELF / SOD-80
CASE 100AD
ISSUE O

DATE 30 APR 2012



NOTES: UNLESS OTHERWISE SPECIFIED

A) PACKAGE STANDARD REFERENCE:
JEDEC DO-213, VARIATION AC.

B) ALL DIMENSIONS ARE IN MILLIMETERS.

 CORNER RADIUS IS OPTIONAL.

D) DRAWING FILE NAME: SOD80A REV01

DOCUMENT NUMBER:	98AON79582E	Electronic versions are uncontrolled except when accessed directly from the Document Repository. Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red.
DESCRIPTION:	MINIMELF / SOD-80	PAGE 1 OF 1

onsemi and onsemi are trademarks of Semiconductor Components Industries, LLC dba onsemi or its subsidiaries in the United States and/or other countries. onsemi reserves the right to make changes without further notice to any products herein. onsemi makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does onsemi assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. onsemi does not convey any license under its patent rights nor the rights of others.

onsemi, **Onsemi**, and other names, marks, and brands are registered and/or common law trademarks of Semiconductor Components Industries, LLC dba "**onsemi**" or its affiliates and/or subsidiaries in the United States and/or other countries. **onsemi** owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of **onsemi**'s product/patent coverage may be accessed at www.onsemi.com/site/pdf/Patent-Marking.pdf. **onsemi** reserves the right to make changes at any time to any products or information herein, without notice. The information herein is provided "as-is" and **onsemi** makes no warranty, representation or guarantee regarding the accuracy of the information, product features, availability, functionality, or suitability of its products for any particular purpose, nor does **onsemi** assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. Buyer is responsible for its products and applications using **onsemi** products, including compliance with all laws, regulations and safety requirements or standards, regardless of any support or applications information provided by **onsemi**. "Typical" parameters which may be provided in **onsemi** data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. **onsemi** does not convey any license under any of its intellectual property rights nor the rights of others. **onsemi** products are not designed, intended, or authorized for use as a critical component in life support systems or any FDA Class 3 medical devices or medical devices with a same or similar classification in a foreign jurisdiction or any devices intended for implantation in the human body. Should Buyer purchase or use **onsemi** products for any such unintended or unauthorized application, Buyer shall indemnify and hold **onsemi** and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that **onsemi** was negligent regarding the design or manufacture of the part. **onsemi** is an Equal Opportunity/Affirmative Action Employer. This literature is subject to all applicable copyright laws and is not for resale in any manner.

PUBLICATION ORDERING INFORMATION

LITERATURE FULFILLMENT:

Email Requests to: orderlit@onsemi.com

onsemi Website: www.onsemi.com

TECHNICAL SUPPORT

North American Technical Support:

Voice Mail: 1 800-282-9855 Toll Free USA/Canada

Phone: 011 421 33 790 2910

Europe, Middle East and Africa Technical Support:

Phone: 00421 33 790 2910

For additional information, please contact your local Sales Representative