

Small Signal Diode

FDLL4150


MiniMELF/SOD-80
CASE 100AD

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	50	V
I_O	Average Rectified Forward Current	200	mA
I_F	DC Forward Current	400	mA
i_F	Recurrent Peak Forward Current	600	mA
I_{FSM}	Non-Repetitive Peak Forward Current	Pulse Width = 1.0 s	A
		Pulse Width = 1.0 μs	
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

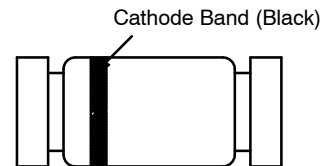
Symbol	Parameter	Max	Unit
		1N/FDLL4150	
P_D	Power Dissipation	500	mW
	Derate above 25°C	3.33	mW/ $^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	300	$^\circ\text{C}/\text{W}$

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

Symbol	Parameter	Test Conditions	Min	Max	Unit
B_V	Breakdown Voltage	$I_R = 5.0 \mu\text{A}$	75	–	V
I_R	Reverse Current	$V_R = 50 \text{ V}$	–	100	nA
		$V_R = 50 \text{ V}, T_A = 150^\circ\text{C}$	–	100	μA
V_F	Forward Voltage	$I_F = 1.0 \text{ mA}$	540	620	mV
		$I_F = 10 \text{ mA}$	660	740	
		$I_F = 50 \text{ mA}$	760	860	
		$I_F = 100 \text{ mA}$	820	920	
		$I_F = 200 \text{ mA}$	0.87	1.0	V
C_O	Diode Capacitance	$V_R = 0, f = 1.0 \text{ MHz}$	–	2.5	pF
t_{rr}	Reverse Recovery Time	$I_F = I_R = 10 \text{ mA} - 200 \text{ mA}, R_L = 100 \Omega$	–	4.0	ns
		$I_F = I_R = 200 \text{ mA} - 400 \text{ mA}, R_L = 100 \Omega$	–	6.0	ns
T_{FR}	Forward Recovery Time	$I_F = 200 \text{ mA}, V_{FR} = 1.0 \text{ V}$	–	10	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.

MARKING DIAGRAM



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

ORDERING INFORMATION

Device	Package	Shipping [†]
FDLL4150	MiniMELF/SOD-80 (Pb-Free/Halide Free)	2500 / 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.

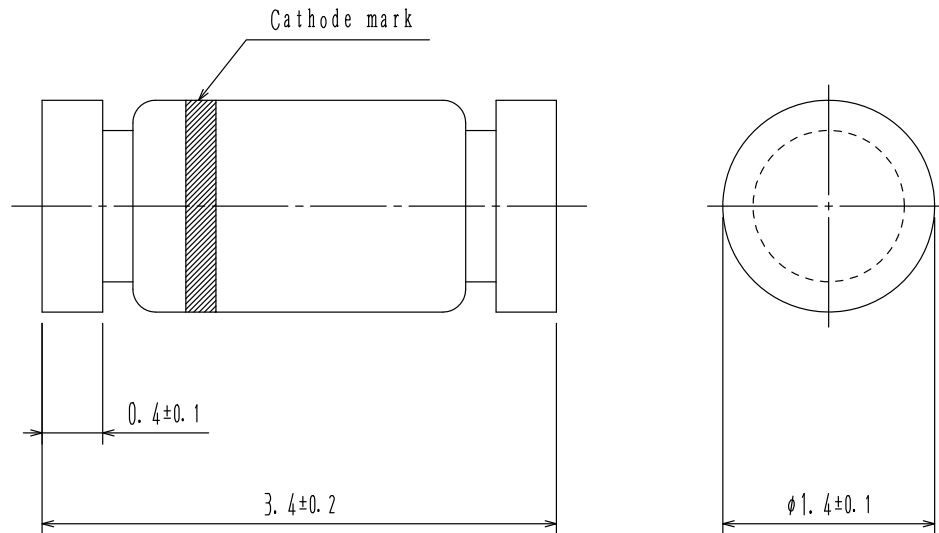
MECHANICAL CASE OUTLINE

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

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DESCRIPTION:	MINIMELF / SOD-80	PAGE 1 OF 1

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