onsemi

Small Signal Diode

FDLL4150

Features

• This is a Pb-Free and Halide Free Device

ABSOLUTE MAXIMUM RATINGS

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

Symbol	Parameter		Value	Unit
WIV	Working Inverse Voltage		50	V
۱ ₀	Average Rectified Forward Current		200	mA
١ _F	DC Forward Current		400	mA
İF	Recurrent Peak Forward Current		600	mA
I _{FSM}	Non-Repetitive Peak Forward	Pulse Width = 1.0 s	1.0	А
	Current	Pulse Width = 1.0 μ s	4.0	
T _{STG}	Storage Temperature Range		-65 to +200	°C
TJ	Operating Junction Temperature		175	°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.

- 1. 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.

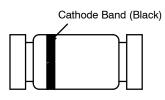
THERMAL CHARACTERISTICS

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



MiniMELF/SOD-80 CASE 100AD

MARKING DIAGRAM



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

ORDERING INFORMATION

Device	Package	Shipping [†]
FDLL4150	MiniMELF/SOD-80	2500 /
	(Pb-Free/Halide Free)	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, <u>BRD8011/D</u>.

ELECTRICAL CHARACTERISTICS (Values are at T_A = 25°C unless otherwise noted.)

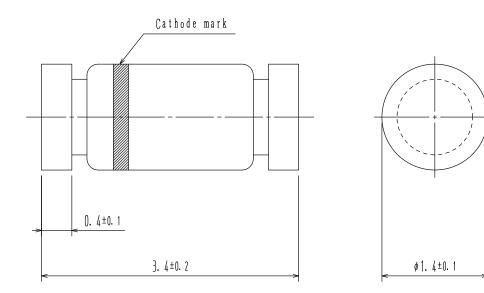
•	Parameter	Test Conditions Min		Max	Unit
B _V	Breakdown Voltage	I _R = 5.0 μA	75	-	V
I _R	Reverse Current	V _R = 50 V	-	100	nA
		$V_{R} = 50 \text{ V}, \text{T}_{A} = 150^{\circ}\text{C}$	-	100	μA
V _F	Forward Voltage	I _F = 1.0 mA	540	620	mV
		I _F = 10 mA	660	740	
		I _F = 50 mA	760	860	
		I _F = 100 mA	820	920	
		I _F = 200 mA	0.87	1.0	V
CO	Diode Capacitance	V _R = 0, f = 1.0 MHz	-	2.5	pF
t _{rr}	Reverse Recovery Time	I_F = I_R = 10 mA – 200 mA, R_L = 100 Ω	-	4.0	ns
		I_{F} = I_{R} = 200 mA – 400 mA, R_{L} = 100 Ω	-	6.0	ns
T _{FR}	Forward Recovery Time	I _F = 200 mA, V _{FR} = 1.0 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.

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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. C CORNER RADIUS IS OPTIONAL.

D) DRAWING FILE NAME: SOD80A REV01

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