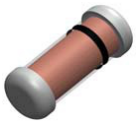
Small Signal Diode

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°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	1.0	A
		Pulse Width = 1.0 μs	4.0	
T_{STG}	Storage Temperature Range		−65 to +200	°C
T_J	Operating Junction Temperature		175	°C

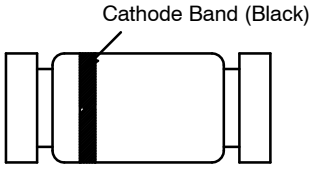
Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

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

THERMAL CHARACTERISTICS

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

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.

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

Symbol	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 V, T_A = 150°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
C_O	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

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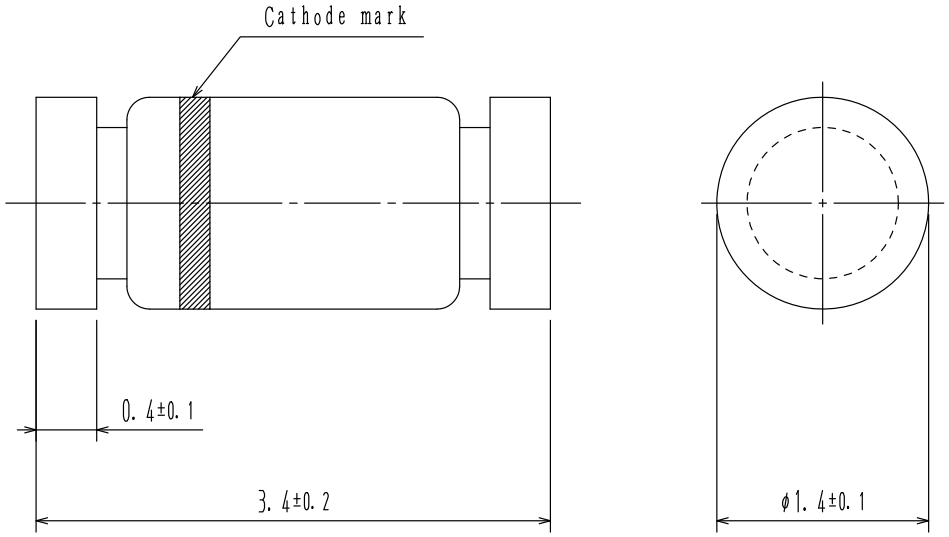

NOTES: UNLESS OTHERWISE SPECIFIED

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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