

FDH / FDLL 300 / A / 333

High Contraction Low Leakage Diode



LL-34 COLOR BAND MARKING	
DEVICE	1ST BAND
FDLL300	WHITE
FDLL300A	WHITE
FDLL333	WHITE

-1st band denotes cathode terminal and has wider width

Absolute Maximum Ratings⁽¹⁾

Stresses exceeding the absolute maximum ratings may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The absolute maximum ratings are stress ratings only. Values are at $T_A = 25^\circ\text{C}$ unless otherwise noted.

Symbol	Parameter	Value	Units	
W_{IV}	Working Inverse Voltage	125	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 Surge Current	Pulse Width = 1.0 s	1.0	A
		Pulse Width = 1.0 μs	4.0	A
T_{STG}	Storage Temperature Range	-65 to +200	$^\circ\text{C}$	
T_J	Operating Junction Temperature	175	$^\circ\text{C}$	

Note:

- These ratings are limiting values above which the serviceability of the diode may be impaired. These ratings are based on a maximum junction temperature of 200°C . These are steady state limits. The factory 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.	Units
		FDH / FDLL 400	
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	$^\circ\text{C}/\text{W}$

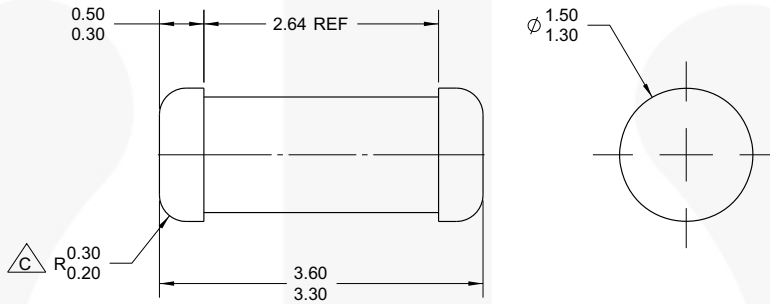
Electrical Characteristics

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

Symbol	Parameter	Test Conditions	Min.	Max.	Units		
V_R	Breakdown Voltage	$I_R = 100 \mu\text{A}$	150		V		
V_F	Forward Voltage	FDH / FDLL 300 / A	$I_F = 1.0 \text{ mA}$		680	mV	
		FDH / FDLL 300	$I_F = 5.0 \text{ mA}$		750	mV	
		FDH / FDLL 300A	$I_F = 5.0 \text{ mA}$		760	mV	
		FDH / FDLL 300 / A	$I_F = 10 \text{ mA}$		800	mV	
		FDH / FDLL 300	$I_F = 50 \text{ mA}$		880	mV	
		FDH / FDLL 300A	$I_F = 50 \text{ mA}$		890	mV	
		FDH / FDLL 300 / A	$I_F = 100 \text{ mA}$		920	mV	
		FDH / FDLL 300 / A	$I_F = 200 \text{ mA}$		1.0	V	
		FDH / FDLL 333	$I_F = 50 \text{ mA}$		800	890	mV
			$I_F = 100 \text{ mA}$		830	940	mV
			$I_F = 150 \text{ mA}$		860	970	mV
			$I_F = 200 \text{ mA}$		0.87	1.05	V
$I_F = 250 \text{ mA}$			0.88	1.08	V		
I_R	Reverse Leakage	FDH / FDLL 300 / A	$V_R = 125 \text{ V}$		1.0	nA	
			$V_R = 125 \text{ V}, T_A = 150^\circ\text{C}$		3.0	μA	
		FDH / FDLL 333	$V_R = 125 \text{ V}$		3.0	nA	
			$V_R = 125 \text{ V}, T_A = 100^\circ\text{C}$		500	nA	
C_O	Diode Capacitance	$V_R = 0, f = 1.0 \text{ MHz}$		6.0	pF		

Physical Dimensions

SOD-80



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

Figure 1. 2-TERMINAL, SOD-80, JEDEC DO-213AC, MINI-MELF

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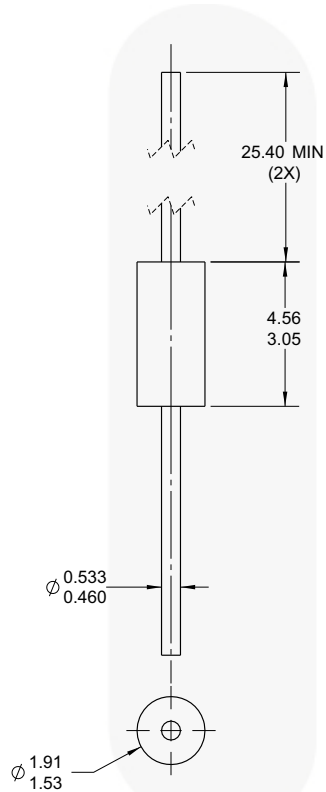
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Physical Dimensions (Continued)

DO-35



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.
- E) DRAWING FILE NAME: DO35AREV02

Figure 2. AXIAL LEADED, GLASS, JEDEC DO204, VARIATION AH (ACTIVE)

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