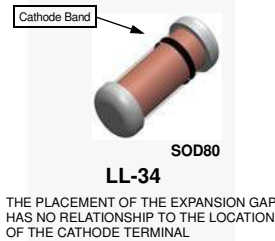
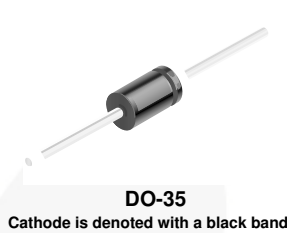


# FDH 400 / FDLL 400

## High Voltage General Purpose Diode



LL-34 COLOR BAND MARKING	
DEVICE	1ST BAND
FDLL400	BLACK

-1st band denotes cathode terminal and has wider width

### Absolute Maximum Ratings<sup>(1)</sup>

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	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 Surge Current	Pulse Width = 1.0 s	1.0	A
		Pulse Width = 1.0 $\mu\text{s}$	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  $200^\circ\text{C}$ . 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 $25^\circ\text{C}$	3.33	mW/ $^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	300	$^\circ\text{C}/\text{W}$

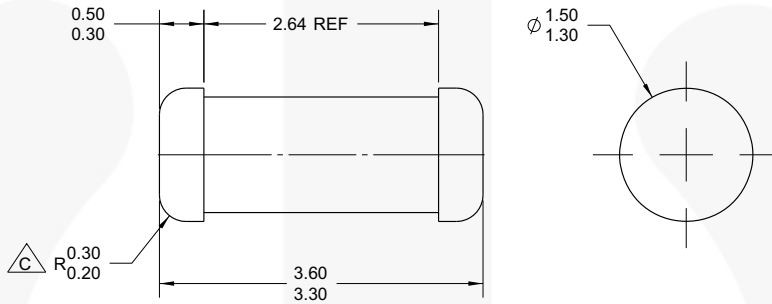
## Electrical Characteristics

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

Symbol	Parameter	Test Conditions	Min.	Max.	Units
$V_R$	Breakdown Voltage	FDH / FDLL 400 $I_R = 100 \mu\text{A}$	200		V
$V_F$	Forward Voltage	FDH / FDLL 400 $I_F = 200 \text{ mA}$		1.0	V
		$I_F = 300 \text{ mA}$		1.1	V
$I_R$	Reverse Leakage	FDH / FDLL 400 $V_R = 150 \text{ V}$		100	nA
		$V_R = 150 \text{ V}, T_A = 150^\circ\text{C}$		100	$\mu\text{A}$
$C_O$	Diode Capacitance	FDH / FDLL 400 $V_R = 0, f = 1.0 \text{ MHz}$		2.0	pF
$t_{rr}$	Reverse Recovery Time	FDH / FDLL 400 $I_F = I_R = 30 \text{ mA}, I_{rr} = 3.0 \text{ mA}, R_L = 100 \Omega$		50	ns

# 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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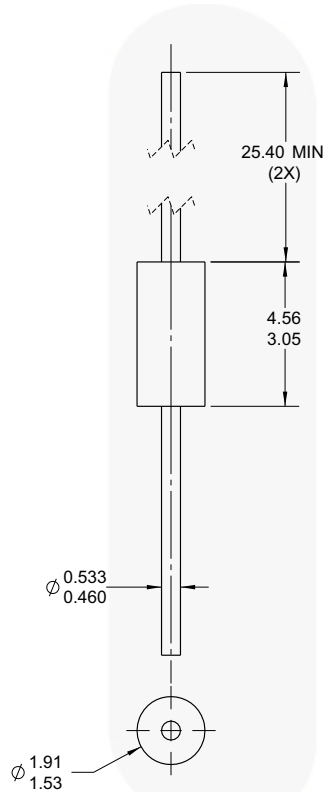
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[http://www.fairchildsemi.com/packaging/tr/SOD80A\\_tnr.pdf](http://www.fairchildsemi.com/packaging/tr/SOD80A_tnr.pdf)

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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EcoSPARK®	MegaBuck™	SMART START™	TRUECURRENT®*
EfficientMax™	MICROCOUPLER™	Solutions for Your Success™	μSerDes™
ESBC™	MicroFET™	SPM®	
	MicroPak™	STEALTH™	UHC®
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FACT Quiet Series™	MotionMax™	SuperSOT™-6	VXC™
FACT®	mWSaver™	SuperSOT™-8	VisualMax™
FAST®	OptoHi™	SupreMOS®	VoltagePlus™
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No Identification Needed	Full Production	Datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve the design.
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