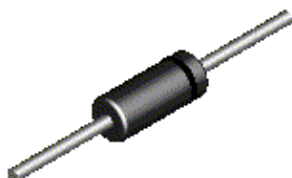


## FDH/FDLL 400



DO-35



LL-34

THE PLACEMENT OF THE EXPANSION GAP  
HAS NO RELATIONSHIP TO THE LOCATION  
OF THE CATHODE TERMINAL

COLOR BAND MARKING

DEVICE	1ST BAND	2ND BAND
FDLL400	BROWN	VIOLET

### High Voltage General Purpose Diode

Sourced from Process 1J. See MMBD1401-1405 for characteristics.

#### Absolute Maximum Ratings\*

TA = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
$W_{IV}$	Working Inverse Voltage	<b>FDH/FDLL400</b> 150	V
$I_O$	Average Rectified Current	200	mA
$I_F$	DC Forward Current	500	mA
$i_f$	Recurrent Peak Forward Current	600	mA
$i_{f(surge)}$	Peak Forward Surge Current Pulse width = 1.0 second Pulse width = 1.0 microsecond	1.0 4.0	A A
$T_{stg}$	Storage Temperature Range	-65 to +200	°C
$T_J$	Operating Junction Temperature	175	°C

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

**NOTES:**

- 1) These ratings are based on a maximum junction temperature of 200 degrees C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

#### Thermal Characteristics

TA = 25°C unless otherwise noted

Symbol	Characteristic	Max	Units
		<b>FDH/FDLL 400</b>	
$P_D$	Total Device Dissipation Derate above 25°C	500	mW
		3.33	mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	300	°C/W

## High Voltage General Purpose Diode

(continued)

### Electrical Characteristics

TA = 25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Max	Units
B <sub>V</sub>	Breakdown Voltage <b>FDH/FDLL400</b>	I <sub>R</sub> = 100 μA	200		V
I <sub>R</sub>	Reverse Current <b>FDH/FDLL400</b>	V <sub>R</sub> = 150 V V <sub>R</sub> = 150 V, T <sub>A</sub> = 150°C		100 100	nA μA
V <sub>F</sub>	Forward Voltage <b>FDH/FDLL400</b>	I <sub>F</sub> = 200 mA I <sub>F</sub> = 300 mA		1.0 1.1	V V
C <sub>O</sub>	Diode Capacitance <b>FDH/FDLL400</b>	V <sub>R</sub> = 0, f = 1.0 MHz		2.0	pF
T <sub>RR</sub>	Reverse Recovery Time <b>FDH/FDLL400</b>	I <sub>F</sub> = I <sub>R</sub> = 30 mA, I <sub>rr</sub> = 3.0 mA, R <sub>L</sub> = 100 Ω		50	nS

FDH400 / FDLL400

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E <sup>2</sup> CMOS™	PowerTrench®	VCX™
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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

## PRODUCT STATUS DEFINITIONS

### Definition of Terms

Datasheet Identification	Product Status	Definition
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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