

FAIRCHILD

A Schlumberger Company

FDH400/FDLL400
FDH444/FDLL444High Voltage General
Purpose Diodes

T-01-09

- BV... 200 V (MIN) FDH400
... 150 V (MIN) FDH444
- V_F ... 1.1 V (MAX) @ 300 mA FDH400
@ 200 mA FDH444

ABSOLUTE MAXIMUM RATINGS (Note 1)**Temperatures**

Storage Temperature Range
Max Junction Operating Temperature
Lead Temperature

-65°C to +200°C
+175°C
+260°C

If you need this device in the
SOT package, an electrical
equivalent is available. See
FDS01400 family.

Power Dissipation (Note 2)

Maximum Total Dissipation at 25°C Ambient
Linear Derating Factor (from 25°C)

500 mW
3.33 mW/°C

Maximum Voltage and Currents

WIV Working Inverse Voltage
 I_O Average Rectified Current
 I_F Forward Current Steady State
 I_F Recurrent Peak Forward Current
 I_F (surge) Peak Forward Surge Current
Pulse width = 1.0 s
Pulse width = 1.0 μ s

FDH400

175 V

200 mA

500 mA

600 mA

1.0 A

4.0 A

FDH444

125 V

200 mA

500 mA

600 mA

1.0 A

4.0 A

PACKAGES

FDH400 DO-35

FDH444 DO-35

FDLL400 LL-34

FDLL444 LL-34

ELECTRICAL CHARACTERISTICS (25°C Ambient Temperature unless otherwise noted)

SYMBOL	CHARACTERISTIC	FDH400		FDH444		UNITS	TEST CONDITIONS
		MIN	MAX	MIN	MAX		
VF	Forward Voltage		1.1 1.0		1.2 1.1	V	$I_F = 300$ mA $I_F = 200$ mA
BV	Breakdown Voltage	200		150		V	$I_R = 100$ μ A
I_R	Reverse Current		100 100		50 100	nA μ A	$V_R = 150$ V $V_R = 100$ V $V_R = 150$ V, $T_A = 150^\circ$ C $V_R = 100$ V, $T_A = 150^\circ$ C
C	Capacitance		2.0		2.5	pF	$V_R = 0$, $f = 1.0$ MHz
t_{rr}	Reverse Recovery Time		50		60	ns	$I_F = 30$ mA, $I_R = 30$ mA $R_L = 100$ Ω , $I_{rr} = 3.0$ mA

NOTES:

1. The maximum ratings are limiting values above which life or satisfactory performance may be impaired.
2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.
3. For product family characteristic curves, refer to Chapter 4, D1.