FAIRCHILD
A Schlumberger Company

FDH900/FDLL900
FDH999/FDLL999
High Speed Switching Diodes

T-03-09

- **BV...45V (FDH900), 35 V (FDH999)**
- **t_{rr}...4.0 ns (FDH900), 5.0 ns (FDH999)**

PACKAGES

FDH900	DO-35
FDH999	DO-35
FDLL900	LL-34
FDLL999	LL-34

If you need this device in the SOT package, an electical equivalent is available. See FDSO1200 family.

ABSOLUTE MAXIMUM RATINGS (Note 1)

Temperatures

Storage Temperature Range	−65°C to +200°C
Max. Junction Operating Temperature	+175°C
Lead Temperature	+260°C

Power Dissipation (Note 2)

Maximum Total Dissipation at 25°C Ambient	500 mW
Linear Derating Factor (From 25°C)	3.3 mW/°C.

Maximum Voltage and Currents

WIV	Working Inverse Voltage	FDH900	40 V
		FDH999	25 V
I_O	Average Rectified Current		200 mA
I_F	Continuous Forward Current		500 mA
i_f	Recurrent Peak Forward Current		600 mA
$i_{f(surge)}$	Peak Forward Surge Current		
	Pulse Width = 1.0 s		1.0 A
	Pulse Width = 1.0 μs		4.0 A

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

SYMBOL	CHARACTERISTIC	FDH900		FDH999		UNITS	TEST CONDITIONS
		MIN	MAX	MIN	MAX		
BV	Breakdown Voltage	45		35		V	I_R = 5.0 μA
I_R	Reverse Current		500		1.0	μA nA	V_R = 25 V V_R = 40 V
V_F	Forward Voltage		1.0		1.0	V V	I_F = 10 mA I_F = 100 mA
C	Capacitance		3.0		5.0	pF	V_R = 0, f = 1.0 MHz
t_{rr}	Reverse Recovery Time		4.0		5.0	ns	I_f = 10 mA, I_r = 10 mA, R_L = 100 Ω, I_{rr} = 1.0 mA

NOTES:
1. These ratings are limiting values above which the serviceability of any individual semiconductor device may be impaired.
2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty-cycle operation.
3. For product family characteristic curves, refer to Chapter 4, D4.