FAIRCHILD
A Schlumberger Company

FDH1000/FDLL1000

High Conductance Switching Diodes

T-03-09

- V_F . . . 1 V (max) @ 500 mA
- Q_S . . . 100 pC (max)

PACKAGES

FDH1000	DO-35
FDLL1000	LL-34

ABSOLUTE MAXIMUM RATINGS (Note 1)

Temperatures

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

Power Dissipation (Note 2)

Maximum Total Power Dissipation at 25°C Ambient	500 mW
Linear Power Derating Factor	3.33 mW/°C

Maximum Voltage and Currents

WIV	Working Inverse Voltage	50 V
I_O	Average Rectified Current	200 mA
I_F	Continuous Forward Current	500 mA
i_f	Peak Repetitive Forward Current	600 mA
$i_{f(surge)}$	Peak Forward Surge Current	
	Pulse Width = 1 s	1.0 A
	Pulse Width = 1 μs	4.0 A

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

SYMBOL	CHARACTERISTIC	MIN	MAX	UNITS	TEST CONDITIONS
V_f	Forward Voltage		1.0	V	I_F = 500 mA
I_R	Reverse Current		5.0 50 50	μA nA μA	V_R = 50 V V_R = 20 V V_R = 20 V, T_A = 125°C
BV	Breakdown Voltage	75		V	I_R = 100 μA
C	Capacitance		5.0	pF	V_R = 0, f = 1.0 MHz
Q_S	Stored Charge		100	pC	I_f = 10 mA, V_R = 10 V

NOTES:
1. 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 operation.
3. For family characteristic curves, refer to Chapter 4, D4.