

FAIRCHILD

A Schlumberger Company

BAY74

High Conductance
Ultra Fast Diode

T-03-09

- t_{rr} ...4.0 ns (MAX)
- C...3.0 pF (MAX)

PACKAGE
BAY74 DO-35

ABSOLUTE MAXIMUM RATINGS (Note 1)

Temperatures
Storage Temperature Range -65° C to +200° C
Maximum Operating Junction Temperature +175° C
Lead Temperature +280° C

Power Dissipation (Note 2)
Maximum Total Dissipation at 25° C Ambient 500 mW
Linear Deviation Factor (from 25° C) 3.33 mW

Maximum Voltage and Currents

WIV	Working Inverse Voltage	35 V
IO	Average Rectified Current	100 mA
IF	Continuous Forward Current	300 mA
IF	Recurent Peak Forward Current	400 mA
IF (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	MIN	MAX	UNITS	TEST CONDITIONS
VF	Forward Voltage	0.85	1.10	V	IF = 300 mA
		0.82	1.00	V	IF = 200 mA
		0.78	0.93	V	IF = 100 mA
		0.73	0.88	V	IF = 50 mA
		0.65	0.77	V	IF = 10 mA
		0.54	0.65	V	IF = 1.0 mA
IR	Reverse Current		100	nA	VR = 35 V
			100	μA	VR = 35 V, TA = 125° C
BV	Breakdown Voltage	50		V	IR = 5.0 μA
C	Capacitance		3.0	pF	VR = 0, f = 1.0 MHz
trr	Reverse Recovery Time (Note 4)		4.0	ns	IF = IF = 10 mA to 200 mA
			6.0	ns	IF = IF = 200 mA to 400 mA
trr	Reverse Recovery Time (Note 3)		6.0	ns	IF = 10 mA, IR = 1.0 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 pulses or low duty-cycle operations.
3. Recovery to 0.1 mA.
4. Recovery to 10% of IF.
5. For product family characteristic curves, refer to Chapter 4, D4.

This datasheet has been downloaded from:

www.DatasheetCatalog.com

Datasheets for electronic components.



LittleDiode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.