

3469674 FAIRCHILD SEMICONDUCTOR

84D 27294 D1

FAIRCHILD

A Schlumberger Company

BAX16

T-01-09

General Purpose Industrial Diode

- BV... 180 V (MIN) @ 100 μ A
- I_R... 100 nA (MAX) @ 150V

PACKAGE

BAX16

DO-35

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 (from 25°C)

3.33 mW/°C

Maximum Voltage and Currents

WIV

Working Inverse Voltage

150 V

I_O

Average Rectified Current

200 mA

I_F

Continuous Forward Current

500 mA

I_p

Peak Repetitive Forward Current

600 mA

I_{F(surge)}

Peak Forward Surge Current

Pulse Width = 1 s

1.0 A

Pulse Width = 1 μ s

4.0 A

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

SYMBOL	CHARACTERISTIC	MIN	MAX	UNITS	TEST CONDITIONS
V _F	Forward Voltage		1.5	V	I _F = 200 mA
			1.4	V	I _F = 200 mA, T _A = 175°C
			1.3	V	I _F = 100 mA
			0.85	V	I _F = 10 mA, T _A = 100°C
			0.65	V	I _F = 1 mA
I _R	Reverse Current		100	nA	V _R = 150 V
			100	μ A	V _R = 150 V, T _A = 150°C
			25	nA	V _R = 50 V
			25	μ A	V _R = 50 V, T _A = 150°C
BV	Breakdown Voltage	180		V	I _R = 100 μ A
C	Capacitance		10	pf	V _R = 0, f = 1 MHz
t _{rr}	Reverse Recovery Time (Note 3)		120	ns	I _F = 30 mA, I _R = 30 mA R _L = 100 Ω
Q _s	Stored Charge		700	pC	I _F = 10 mA, V _R = 5 V R _L = 500 Ω

NOTES:

1. These ratings are limiting values above which the serviceability of the diode may be impaired.
2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty-cycle operation.
3. Recovery to I_R = 3 mA.
4. For product family characteristic curves, refer to Chapter 4, D1.

This datasheet has been downloaded from:

www.DatasheetCatalog.com

Datasheets for electronic components.