Silicon - Diode

BAW75

25V / 300mA / 500mW

High Speed Computer Diode

DATASHEET

OEM – Fairchild

Source: Fairchild Databook 1978

Datasheet Rev. 1.3 – 02/19 – data without warranty / liability

BAW75·BAW76

HIGH SPEED COMPUTER DIODES

SILICON PLANAR EPITAXIAL

- t_{rr} . . . 4 ns (max)
- C . . . 4 pf (max)

ABSOLUTE MAXIMUM RATINGS (Note 1)

Temperatures

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

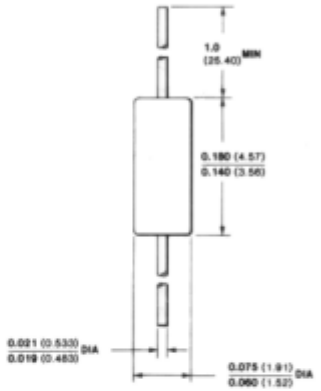
Power Dissipation (Note 2)

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	BAW 75	25V
		BAW 76	50V
I_O	Average Rectified Current		100 mA
I_F	Continuous Forward Current		300 mA
i_f	Peak Repetitive Forward Current		400 mA
i_f (surge)	Peak Forward Surge Current		
	Pulse Width = 1 s		1.0 A
	Pulse Width = 1 μs		4.0 A

DO-35 OUTLINE



NOTES:
Copper clad steel leads, tin plated
Gold plated leads available
Hermetically sealed glass package
Package weight is 0.14 gram

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

SYMBOL	CHARACTERISTIC	BAW 75 MIN	BAW 75 MAX	BAW 76 MIN	BAW 76 MAX	UNITS	TEST CONDITIONS
V_F	Forward Voltage		1.0			V	I_F = 30 mA
					1.0	V	I_F = 100 mA
I_R	Reverse Currant		100			nA	V_R = 25 V
					100	nA	V_R = 50 V
			100			μA	V_R = 25 V, T_A = 150°C
					100	μA	V_R = 50 V, T_A = 150°C
B_V	Breakdown Voltage	35		75		V	I_R = 5.0 μA
C	Capacitance		4.0		2.0	pF	V_R = 0, f = 1 MHz
t_{rr}	Reverse Recovery Time		4.0		4.0	ns	I_f = I_r = 10 mA
							Recovery to 1 mA
			2.0		2.0	ns	I_f = 10 mA, V_R = 6 V, R_L = 100 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. For product family characteristic curves, refer to Chapter 4, D4.