Silicon - Diode

BA219

100V / 100mA / 500mW

General Purpose Diode

DATASHEET

OEM – Fairchild

Source: Fairchild Databook 1978

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

BA216 · BA217 · BA218 · BA219

GENERAL PURPOSE DIODES

DIFFUSED SILICON PLANAR

- WIV . . . 10 V to 100 V
- t_{rr} . . . 4 ns (MAX) BA216–218

ABSOLUTE MAXIMUM RATINGS (Note 1)

Temperatures

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

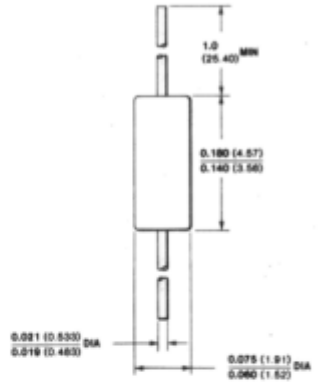
Power Dissipation (Note 2)

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	BA216	10 V	BA217	30 V
I_O	Average Rectified Current	BA218	50 V	BA219	100V
I_F	Continuous Forward Current				100 mA
I_f	Peak Repetitive Forward Current				300 mA
$i_{f(surge)}$	Peak Forward Surge Current				400 mA
	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	BA216 MIN	BA216 MAX	BA217·BA218 MIN	BA217·BA218 MAX	BA219 MIN	BA219 MAX	UNITS	TEST CONDITIONS
V_F	Forward Voltage						1.40		I_F = 100 mA
					1.50				I_F = 50 mA
		0.70	1.00						I_F = 15 mA
					1.00		0.85		I_F = 10 mA
		0.60	0.80						I_F = 3.0 mA
					0.70		0.65		I_F = 1.0 mA
		0.50	0.62						I_F = 0.2 mA
I_R	Reverse Current		1500					nA	V_R = 10 V
	BA217				50			nA	V_R = 10 V
	BA218				50			nA	V_R = 25 V
	BA217				200			nA	V_R = 30 V
	BA218				200			nA	V_R = 50 V
							200	nA	V_R = 50 V
							500	nA	V_R = 100 V
C	Capacitance		3.0		3.0		5.0	pF	V_R = 0, f = 1 MHz
t_{rr}	Reverse Recovery Time		4.0		4.0			ns	I_F = 10 mA, I_R = 60 mA
									R_L = 100 Ω (Note 3)
							120	ns	I_F = 30 mA, I_R = 30 mA
									R_L = 100 Ω (Note 4)

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 = 1 mA.
4. Recovery to I_R = 3 mA.
5. For product family characteristic curves, refer to Chapter 4, D4