FAIRCHILD
A Schlumberger Company

BA217/BA218 T-01-09

General Purpose Diodes

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

PACKAGES

BA217	DO-35
BA218	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	BA218	50 V	BA217	30 V
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

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

SYMBOL	CHARACTERISTIC	BA217-BA218 MIN	BA217-BA218 MAX	UNITS	TEST CONDITIONS
V_F	Forward Voltage		1.50		I_F = 100 mA
					I_F = 50 mA
			1.00		I_F = 15 mA
					I_F = 10 mA
			0.70		I_F = 3.0 mA
					I_F = 1.0 mA
					I_F = 0.2 mA
I_R	Reverse Current			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
				nA	V_R = 50 V
				nA	V_R = 100 V
C	Capacitance		3.0	pF	V_R = 0, f = 1 MHz
t_{rr}	Reverse Recovery Time		4.0	ns	I_F = 10 mA, I_R = 60 mA
					R_L = 100 Ω (Note 3)
				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