

FAIRCHILD SEMICONDUCTOR

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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 μ s				4.0 A

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

SYMBOL	CHARACTERISTIC	BA217 • BA218		UNITS	TEST CONDITIONS
		MIN	MAX		
V_F	Forward Voltage		1.50 1.00 0.70		$I_F = 100$ mA $I_F = 50$ mA $I_F = 15$ mA $I_F = 10$ mA $I_F = 3.0$ mA $I_F = 1.0$ mA $I_F = 0.2$ mA
I_R	Reverse Current BA217 BA218 BA217 BA218		50 50 200 200	nA nA nA nA nA nA	$V_R = 10$ V $V_R = 10$ V $V_R = 25$ V $V_R = 30$ V $V_R = 50$ V $V_R = 50$ V $V_R = 100$ V
C	Capacitance		3.0	pF	$V_R = 0$, $f = 1$ MHz
t_{rr}	Reverse Recovery Time		4.0	ns ns	$I_F = 10$ mA, $I_R = 60$ mA $R_L = 100 \Omega$ (Note 3) $I_F = 30$ mA, $I_R = 30$ mA $R_L = 100 \Omega$ (Note 4)

NOTES:

- These ratings are limiting values above which the serviceability of the diode may be impaired.
- These are steady state limits. The factory should be consulted on applications involving pulsed or low duty-cycle operation.
- Recovery to $I_R = 1$ mA.
- Recovery to $I_R = 3$ mA.
- For product family characteristic curves, refer to Chapter 4, D4