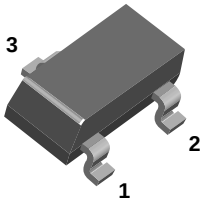
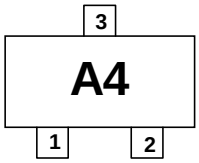
FAIRCHILD
SEMICONDUCTOR®

BAV70 / 74



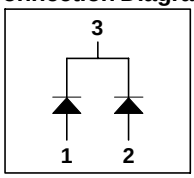
SOT-23



MARKING

BAV70 A4 BAV74 JA

Connection Diagram



Small Signal Diode

Absolute Maximum Ratings*

T_A = 25°C unless otherwise noted

Symbol	Parameter		Value	Units
V_{RRM}	Maximum Repetitive Reverse Voltage	**BAV70**	70	V
		BAV74	50	V
$I_{F(AV)}$	Average Rectified Forward Current		200	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current			
	Pulse Width = 1.0 second		1.0	A
	Pulse Width = 1.0 microsecond		2.0	A
T_{stg}	Storage Temperature Range		-55 to +150	°C
T_J	Operating Junction Temperature		150	°C

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

NOTES:
1) These ratings are based on a maximum junction temperature of 150 degrees C.
2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Thermal Characteristics

Symbol	Parameter	Value	Units
P_D	Power Dissipation	350	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	357	°C/W

Electrical Characteristics

T_A = 25°C unless otherwise noted

Symbol	Parameter		Test Conditions	Min	Max	Units
V_R	Breakdown Voltage	**BAV70**	I_R = 100 µA	70		V
		BAV74	I_R = 100 µA	50		V
V_F	Forward Voltage	**BAV70**	I_F = 1.0 mA		715	mV
			I_F = 10 mA		855	mV
			I_F = 50 mA		1.0	V
		BAV74	I_F = 150 mA		1.25	V
			I_F = 100 mA		1.0	V
I_R	Reverse Current	**BAV70**	V_R = 25 V, T_A = 150°C		60	µA
			V_R = 70 V		5.0	µA
			V_R = 70 V, T_A = 150°C		100	µA
		BAV74	V_R = 50 V		100	nA
			V_R = 50 V, T_A = 150°C		100	µA
C_T	Tatal Capacitance	**BAV70**	V_R = 0, f = 1.0 MHz		1.5	pF
		BAV74	V_R = 0, f = 1.0 MHz		2.0	pF
t_{rr}	Reverse Recovery Time	**BAV70**	I_F = I_R = 10 mA, I_{RR} = 1.0 mA, R_L = 100Ω		6.0	ns
		BAV74	I_F = I_R = 10 mA, I_{RR} = 1.0 mA, R_L = 100Ω		4.0	ns

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