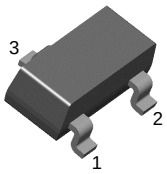
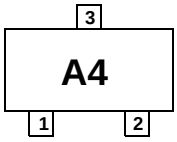
FAIRCHILD
SEMICONDUCTOR®

BAV70 / 74

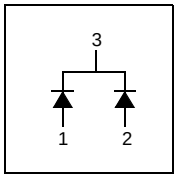


SOT-23



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 the diode may be impaired.

NOTES:
1) These ratings are based on a maximum junction temperature of 150 degrees C.
2) These are steady 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 = 100µA	75		V
		BAV74	I_R = 5.0µA	50		V
V_F	Forward Voltage	BAV70	I_F = 1.0mA		715	mV
			I_F = 10mA		855	mV
			I_F = 50mA		1.0	V
			I_F = 150mA		1.25	V
		BAV74	I_F = 100mA		1.0	V
I_R	Reverse Leakage	BAV70	V_R = 25V, T_A = 150°C		60	µA
			V_R = 70V		5.0	µA
			V_R = 70V, T_A = 150°C		100	µA
		BAV74	V_R = 50V		100	nA
			V_R = 50V, T_A = 150°C		100	µA
C_T	Total Capacitance	BAV70	V_R = 0V, f = 1.0MHz		1.5	pF
		BAV74	V_R = 0V, f = 1.0MHz		2.0	pF
t_{rr}	Reverse Recovery Time	BAV70	I_F = I_R = 10mA, I_{RR} = 1.0mA, R_L = 100Ω		6.0	ns
		BAV74	I_F = I_R = 10mA, I_{RR} = 1.0mA, R_L = 100Ω		4.0	ns

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