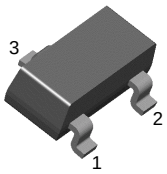
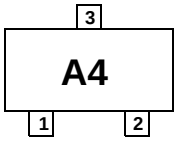
FAIRCHILD
SEMICONDUCTOR®

BAV70 / 74

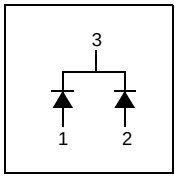


SOT-23



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 BAV74	70 50	V V
$I_{F(AV)}$	Average Rectified Forward Current		200	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second Pulse Width = 1.0 microsecond		 1.0 2.0	 A 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 BAV74	I_R = 100µA I_R = 5.0µA	75 50		V V
V_F	Forward Voltage	BAV70 BAV74	I_F = 1.0mA I_F = 10mA I_F = 50mA I_F = 150mA I_F = 100mA		715 855 1.0 1.25 1.0	mV mV V V V
I_R	Reverse Leakage	BAV70 BAV74 	V_R = 25V, T_A = 150°C V_R = 70V V_R = 70V, T_A = 150°C V_R = 50V V_R = 50V, T_A = 150°C		60 5.0 100 100 100	µA µA µA nA µA
C_T	Total Capacitance	BAV70 BAV74	V_R = 0V, f = 1.0MHz V_R = 0V, f = 1.0MHz		1.5 2.0	pF pF
t_{rr}	Reverse Recovery Time	BAV70 BAV74	I_F = I_R = 10mA, I_{RR} = 1.0mA, R_L = 100Ω I_F = I_R = 10mA, I_{RR} = 1.0mA, R_L = 100Ω		6.0 4.0	ns ns

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CROSSVOLT™	GlobalOptoisolator™	MicroPak™	QFET®	SuperSOT™-8
DOME™	GTO™	MICROWIRE™	QS™	SyncFET™
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E^2CMOS™	I^2C™	MSXPro™	Quiet Series™	TINYOPTO™
EnSigna™	*i-Lo*™	OCX™	RapidConfigure™	TruTranslation™
FACT™	ImpliedDisconnect™	OCXPro™	RapidConnect™	UHC™
FACT Quiet Series™		OPTOLOGIC®	µSerDes™	UltraFET®
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The Power Franchise®		PACMAN™	SMART START™	
Programmable Active Droop™		POP™	SPM™	

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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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