SENSITRON

SEMICONDUCTOR

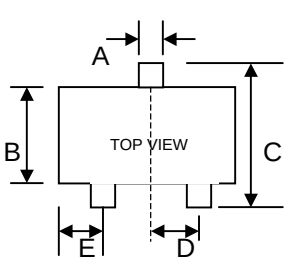
BAV70/74

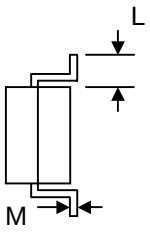
SMALL SIGNAL SWITCHING DIODE

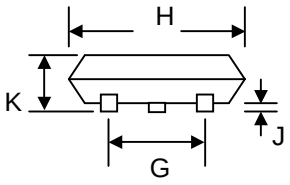
Data Sheet 2771, Rev. -

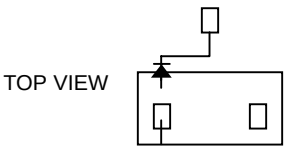
Features

- High Conductance
- Fast Switching
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose and Switching
- Plastic Material – UL Recognition Flammability Classification 94V-O









SOT-23				
Dim	**Min**	**Max**	**Min**	**Max**
A	0.37	0.51	0.014	0.020
B	1.19	1.40	0.047	0.055
C	2.10	2.50	0.083	0.098
D	0.89	1.05	0.035	0.041
E	0.45	0.61	0.018	0.024
G	1.78	2.05	0.07	0.081
H	2.65	3.05	0.104	0.120
J	0.013	0.15	0.0005	0.006
K	0.89	1.10	0.035	0.043
L	0.45	0.61	0.018	0.024
M	0.076	0.17	0.003	0.007
	In mm		**In inch**	

Mechanical Data

- Case: SOT-23, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 0.008 grams (approx.)
- Mounting Position: Any
- Marking: A2

Maximum Ratings @T_A=25°C unless otherwise specified

Characteristic	Symbol	Value		Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100		V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	BAV74	V
		70	BAV70	
Forward Continuous Current (Note 1)	I_F	200		mA
Average Rectified Output Current (Note 1)	I_O	200		mA
Peak Forward Surge Current (Note 1)	I_{FSM}	1.0	Pulse Width=1.0 s	A
		2.0	Pulse Width=1.0 ms	
Power Dissipation (Note 1)	P_d	350		mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	357		°C/W
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150		°C

Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	70(BAV70) 50(BAV74)	—	V	@ I_{RS} = 100µA
Forward Voltage	V_F	—	1.0(BAV70) 150(BAV74)	V	@ I_F = 50mA (BAV70) @ I_F = 100mA (BAV74)
Reverse Leakage Current	I_R	—	5.0(BAV70) 100(BAV74)	µA	@ V_R = 70V (BAV70) @ V_R = 50V (BAV74)
Junction Capacitance	C_j	—	1.5(BAV70) 2.0(BAV74)	pF	V_R = 0V, f = 1.0MHz
Reverse Recovery Time	t_{rr}	—	6.0(BAV70) 4.0(BAV74)	nS	I_F = I_R = 10mA, I_{RR} = 0.1 x I_R, R_L = 100Ω

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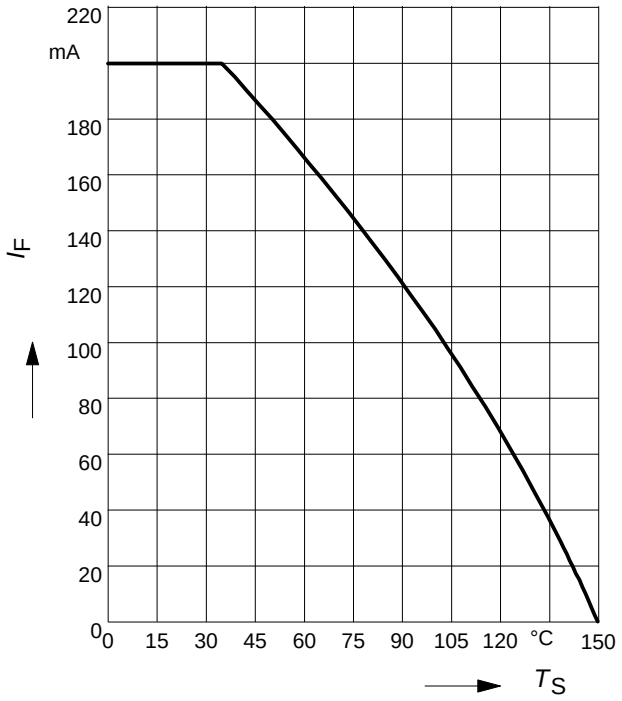
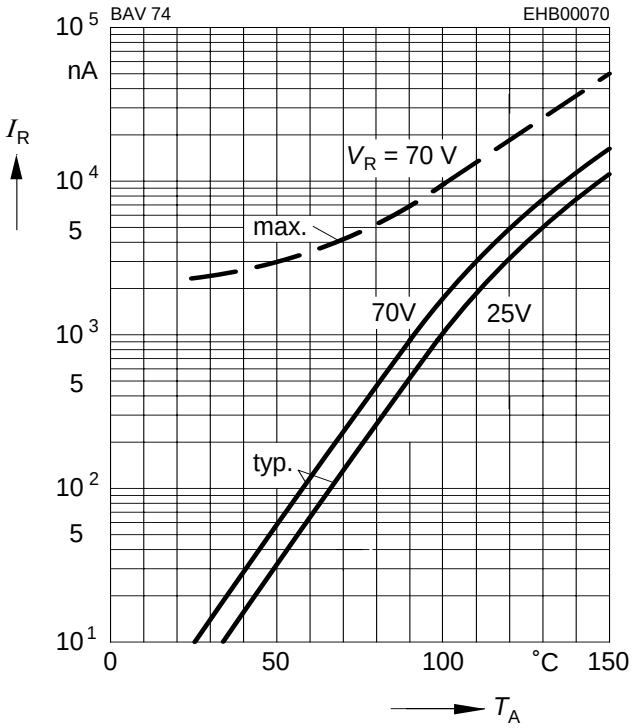
Data Sheet 2771, Rev. -

Note: 1. Device mounted on fiberglass substrate 40 x 40 x 1.5mm.

Forward current $I_F = f(T_S)$

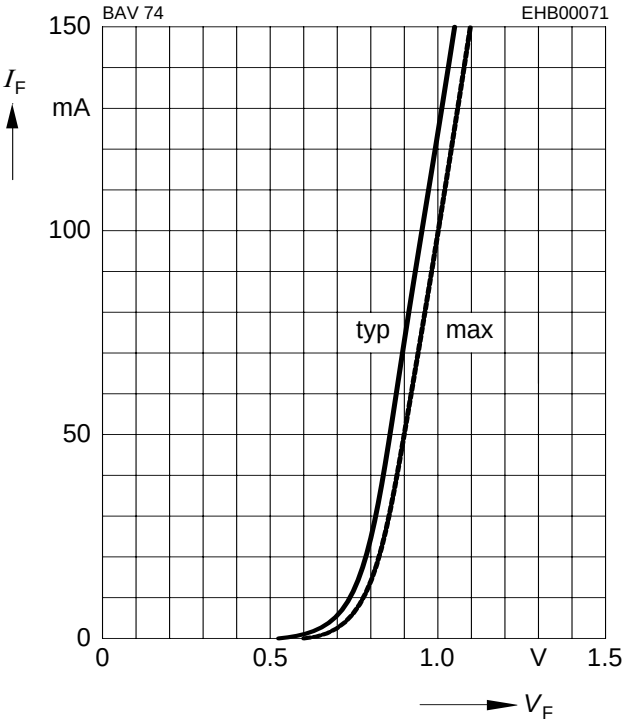


Reverse current $I_R = f(T_A)$



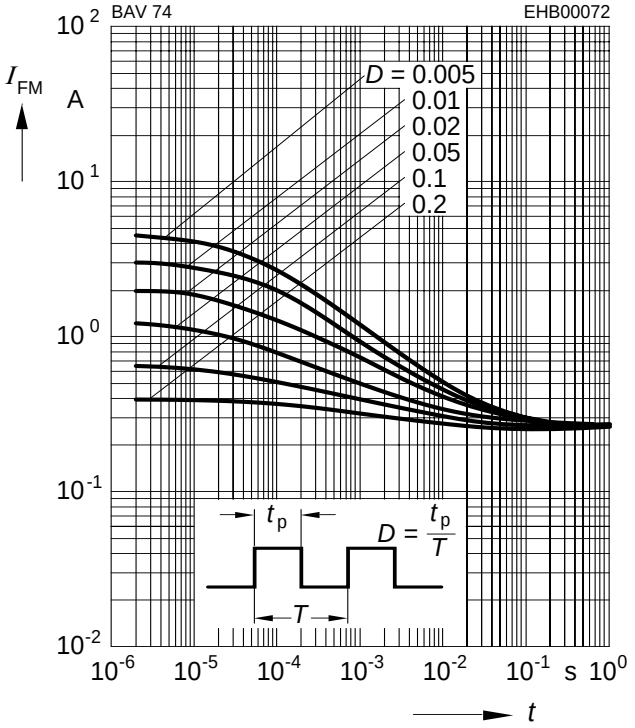
Forward current $I_F = f(V_F)$

T_A = 25°C



Peak forward current $I_{FM} = f(t_p)$

T_A = 25°C



TECHNICAL DATA

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