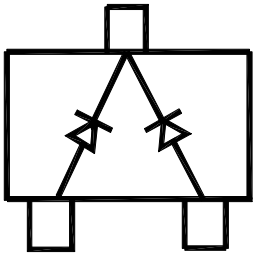
Data Sheet

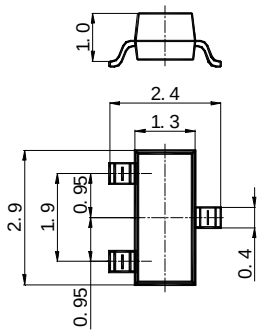
225mW Surface Mount Switching Diode

BAV70

Description



Mechanical Dimensions



SOT-23

Features

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

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: A4

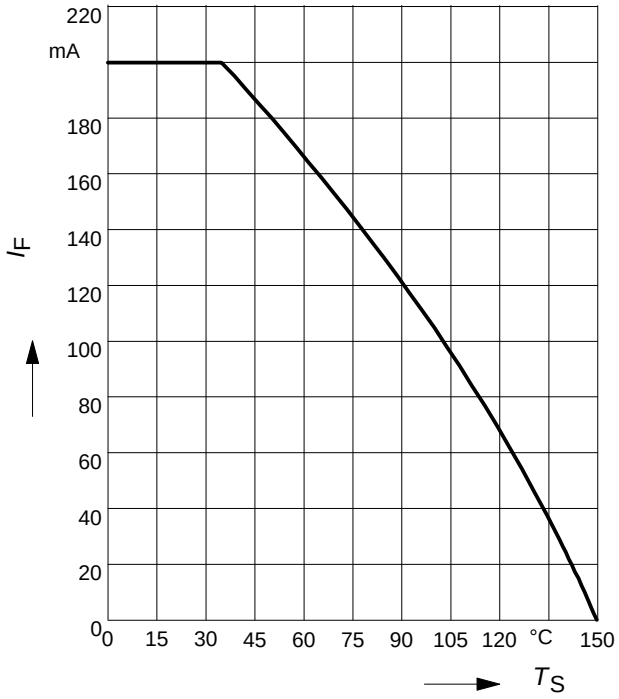
Maximum Ratings @T_A=25°C unless otherwise specified

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	70		V
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	225		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

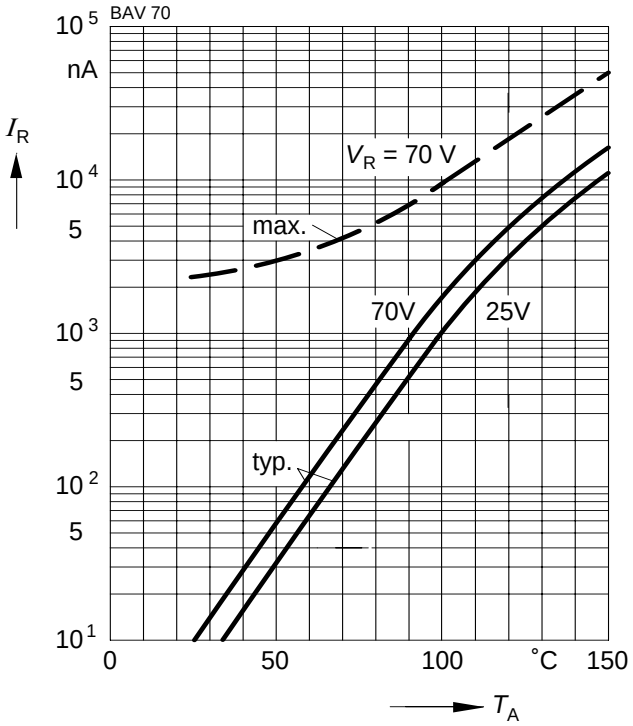
Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	70	—	V	@ I_{RS} = 100μA
Forward Voltage	V_F	—	1.0	V	@ I_F = 50mA
Reverse Leakage Current	I_R	—	2.5	μA	@ V_R = 70V
Junction Capacitance	C_j		1.5	pF	V_R = 0V, f = 1.0MHz
Reverse Recovery Time	t_{rr}	—	6.0	nS	I_F = I_R = 10mA, I_{RR} = 0.1 x I_R, R_L = 100Ω

Forward current $I_F = f(T_S)$

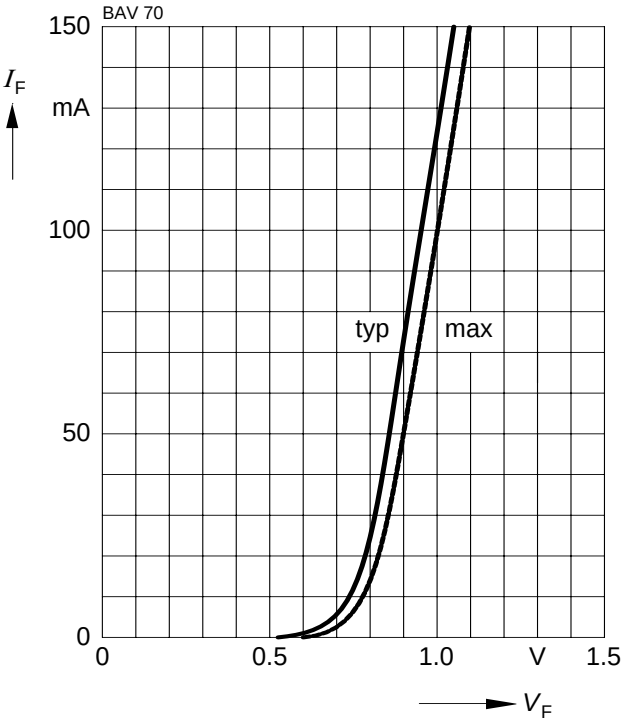


Reverse current $I_R = f(T_A)$



Forward current $I_F = f(V_F)$

T_A = 25°C



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

T_A = 25°C