

BAV70

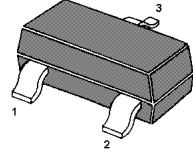
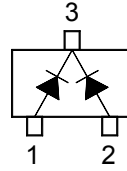
Silicon Epitaxial Planar Switching Diode

Features

- Small package
- Low forward voltage
- Fast reverse recovery time
- Small total capacitance

Applications

- Ultra high speed switching application



Marking Code: **A4**
SOT-23 Plastic Package

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit	
Maximum Peak Reverse Voltage	V_{RM}	100	V	
Reverse Voltage	V_R	75	V	
Average Forward Current	I_O	200	mA	
Maximum Peak Forward Current	I_{FM}	300	mA	
Non-Repetitive Peak Forward Surge Current	I_{FSM}	at $t = 1\text{ s}$	1	A
		at $t = 1\text{ }\mu\text{s}$	2	
Power Dissipation	P_d	350	mW	
Junction Temperature	T_j	150	$^\circ\text{C}$	
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$	

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit	
Forward Voltage	V_F	-	at $I_F = 1\text{ mA}$	715	mV
at $I_F = 10\text{ mA}$			855	mV	
at $I_F = 50\text{ mA}$			1	V	
at $I_F = 150\text{ mA}$			1.25	V	
Reverse Current	I_R	-	at $V_R = 20\text{ V}$	25	nA
at $V_R = 75\text{ V}$			2.5	μA	
at $V_R = 25\text{ V}, T_J = 150\text{ }^\circ\text{C}$			30	μA	
at $V_R = 75\text{ V}, T_J = 150\text{ }^\circ\text{C}$			50	μA	
Reverse Breakdown Voltage	$V_{(BR)R}$	75	-	V	
Total Capacitance	C_T	-	2	pF	
Reverse Recovery Time	t_{rr}	-	4	ns	
at $I_F = I_R = 10\text{ mA}$ to $I_{rr} = 1\text{ mA}$, $R_L = 50\text{ }\Omega$					

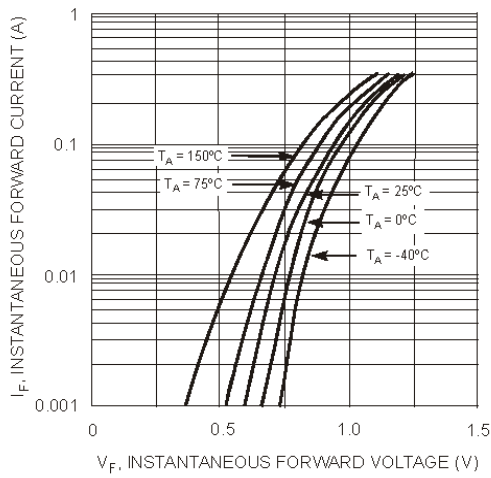


Fig. 1 Forward Characteristics

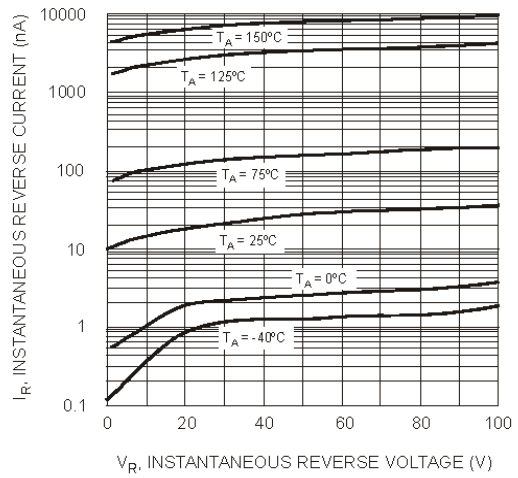


Fig. 2 Typical Reverse Characteristics

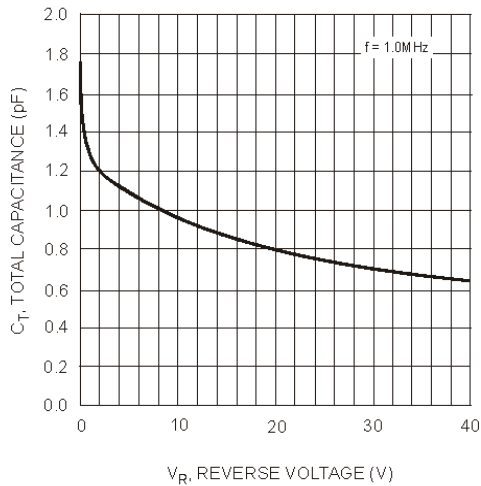


Fig. 3 Typical Capacitance vs. Reverse Voltage

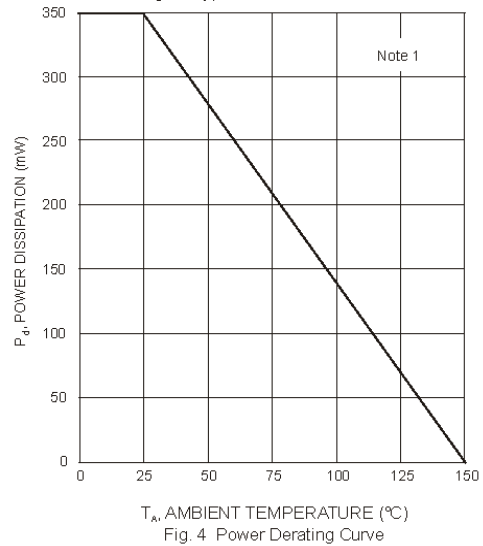


Fig. 4 Power Derating Curve