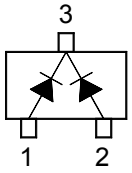
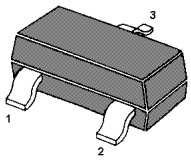
BAV70

Silicon Epitaxial Planar Switching Diode

Features

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





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

Applications

- Ultra high speed switching application

Absolute Maximum Ratings (T_a = 25 °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 at t = 1 s at t = 1 µs	I_{FSM}	1 2	A
Power Dissipation	P_d	350	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage				
at I_F = 1 mA	V_F	-	715	mV
at I_F = 10 mA	V_F	-	855	mV
at I_F = 50 mA	V_F	-	1	V
at I_F = 150 mA	V_F	-	1.25	V
Reverse Current				
at V_R = 20 V	I_R		25	nA
at V_R = 75 V	I_R	-	2.5	µA
at V_R = 25 V, T_J = 150 °C	I_R	-	30	µA
at V_R = 75 V, T_J = 150 °C	I_R	-	50	µA
Reverse Breakdown Voltage at I_R = 100 µA	$V_{(BR)R}$	75	-	V
Total Capacitance at V_R = 0 , f = 1 MHz	C_T	-	2	pF
Reverse Recovery Time at I_F = I_R = 10 mA to I_{rr} = 1 mA, R_L = 50 Ω	t_{rr}	-	4	ns

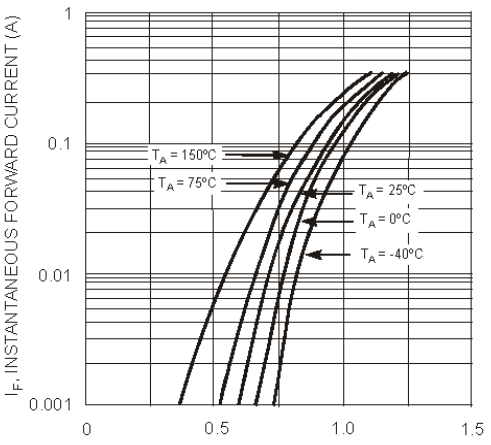


Fig. 1 Forward Characteristics

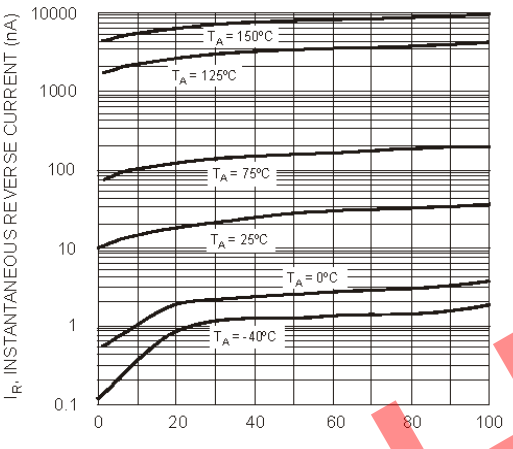


Fig. 2 Typical Reverse Characteristics

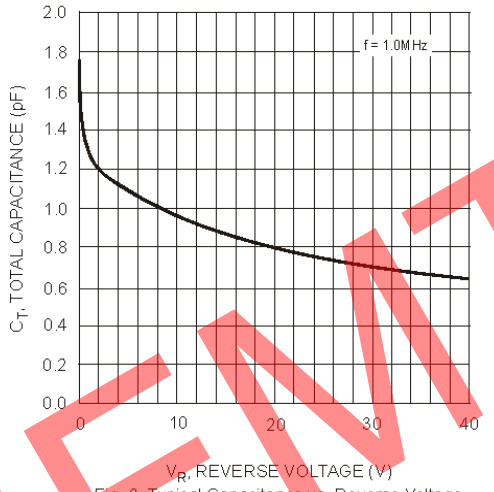


Fig. 3 Typical Capacitance vs. Reverse Voltage

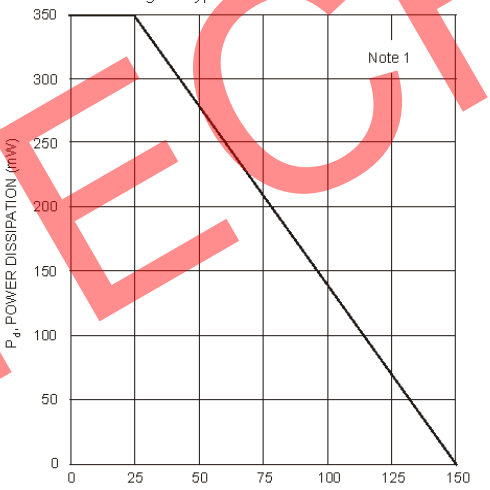


Fig. 4 Power Derating Curve