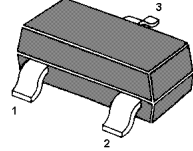
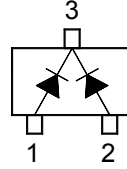


# BAV70

## SILICON EPITAXIAL PLANAR SWITCHING DIODE

### Features

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



### Applications

- Ultra high speed switching application

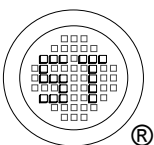
Marking Code: **A4**  
SOT-23 Plastic Package

### 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	$I_{FSM}$	1	A
		2	
Power Dissipation	$P_d$	350	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_s$	- 55 to + 150	$^\circ\text{C}$

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

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



**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002  
Certificate No. 05103

ISO 14001:2004  
Certificate No. 7116

ISO 9001:2000  
Certificate No. 0506088

Dated : 22/01/2008

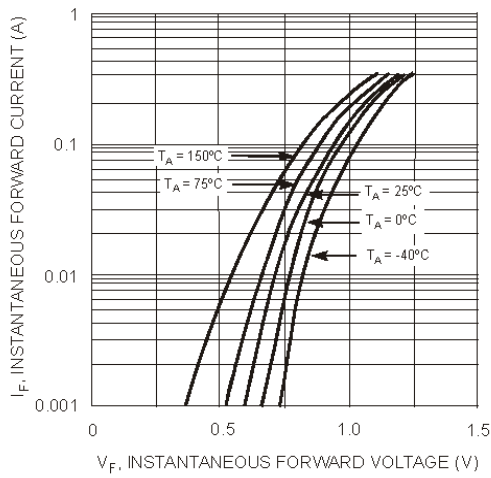


Fig. 1 Forward Characteristics

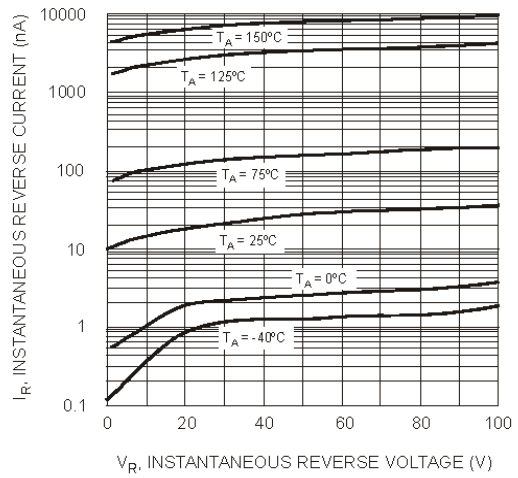


Fig. 2 Typical Reverse Characteristics

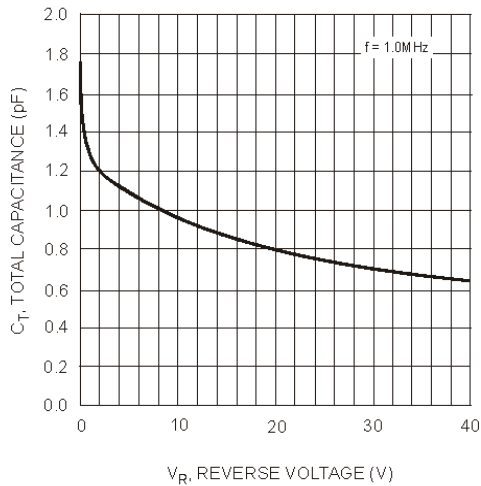


Fig. 3 Typical Capacitance vs. Reverse Voltage

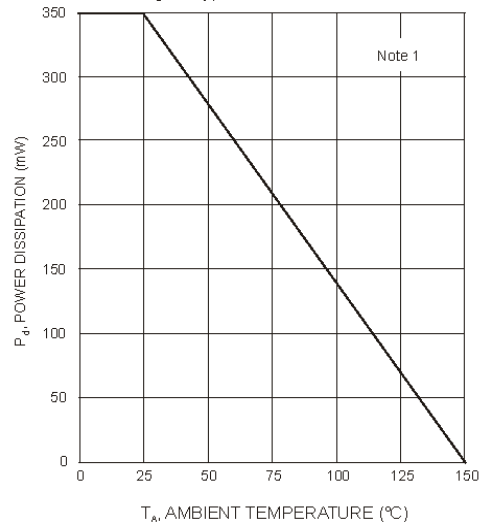
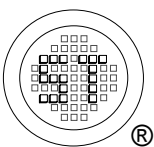


Fig. 4 Power Derating Curve



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