

Kingtronics®

BAV70

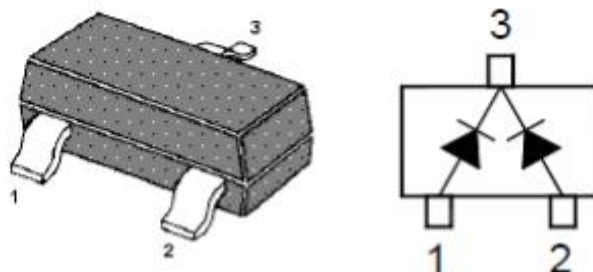
Silicon Epitaxial Planar Switching Diode

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

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
	at $t = 1 \text{ s}$		
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 $T_a = 25^\circ\text{C}$

PARAMETER	SYMBOL	MIN.	MAX.	UNIT
Forward Voltage				
at $I_F = 1 \text{ mA}$			715	mV
at $I_F = 10 \text{ mA}$	V_F	-	855	mV
at $I_F = 50 \text{ mA}$			1	V
at $I_F = 150 \text{ mA}$			1.25	V
Reverse Current				
at $V_R = 20 \text{ V}$			25	nA
at $V_R = 75 \text{ V}$	I_R	-	2.5	μA
at $V_R = 25 \text{ V}, T_J = 150^\circ\text{C}$			30	μA
at $V_R = 75 \text{ V}, T_J = 150^\circ\text{C}$			50	μA
Reverse Breakdown Voltage	$V_{(BR)R}$	75	-	V
Total Capacitance at $V_R = 0, f = 1 \text{ MHz}$	C_T	-	2	pF
Reverse Recovery Time				
at $I_F = I_R = 10 \text{ mA}$ to $I_{rr} = 1 \text{ mA}, R_L = 50 \Omega$	t_{rr}	-	4	ns

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RATINGS AND CHARACTERISTIC CURVES BAV70

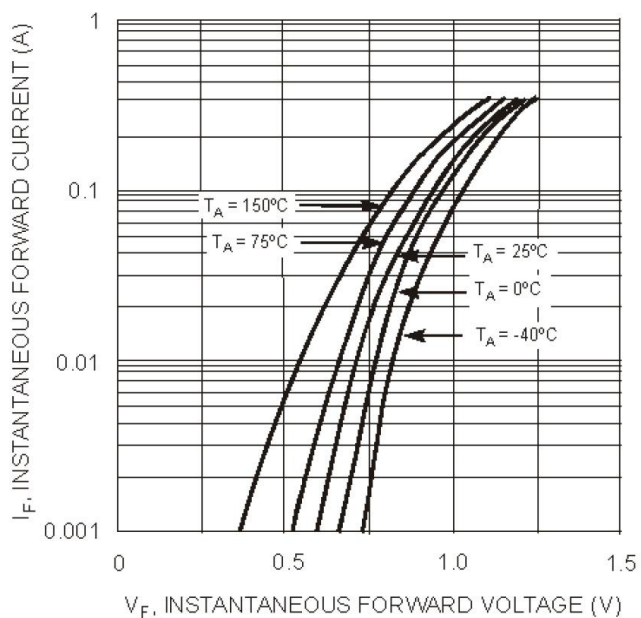


Fig. 1 Forward Characteristics

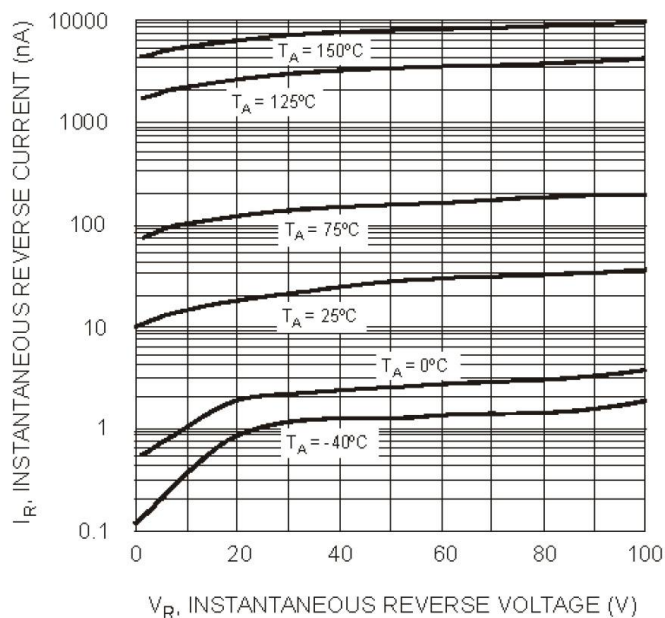


Fig. 2 Typical Reverse Characteristics

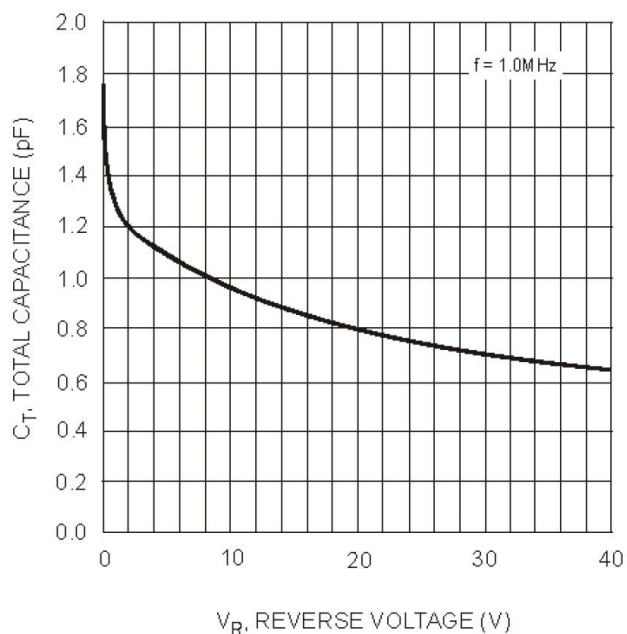


Fig. 3 Typical Capacitance vs. Reverse Voltage

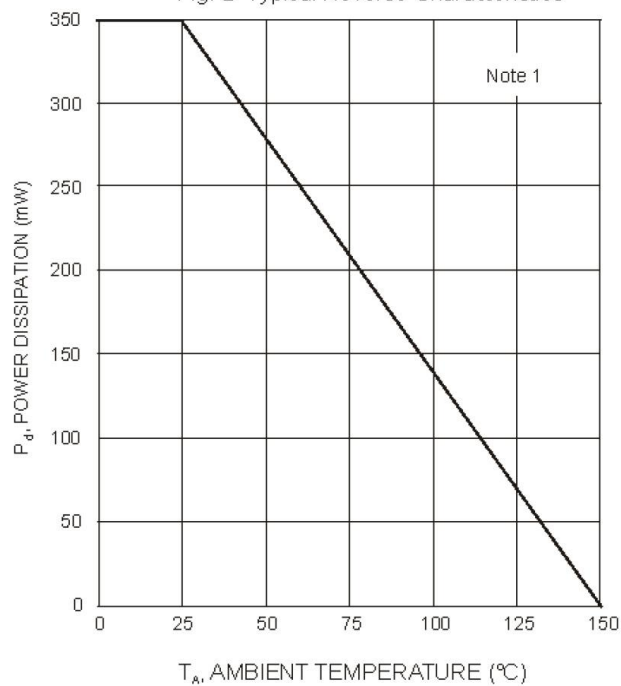


Fig. 4 Power Derating Curve

Note: Specifications are subject to change without notice.