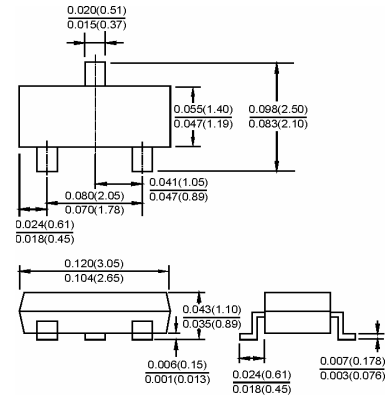

**SOT-23**

**Dimensions in inches and (millimeters)**

## Features

- ✧ Fast switching speed.
- ✧ High conductance.
- ✧ Common cathode.
- ✧ For general purpose switching applications.
- ✧ Surface mount package ideally suited for automatic insertion.

## Applications

- ✧ Small signal switching

## Ordering Information

Type No.	Marking	Package Code
BAV70	A4	SOT-23

### MAXIMUM RATING @ Ta=25°C unless otherwise specified

Parameter	Symbol	Limits	Unit
Non-Repetitive Peak reverse voltage	$V_{RM}$	100	V
Peak repetitive reverse voltage	$V_{RRM}$	75	V
Working peak reverse voltage	$V_{RWM}$		
DC Reverse Voltage	$V_R$		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward continuous Current(Max.)	$I_{FM}$	300	mA
Average rectified output current	$I_O$	150	mA
Repetitive Peak Forward current	$I_{FRM}$	450	mA
Non-repetitive forward Surge Current @t=1.0μs @t=1.0s	$I_{FSM}$	2.0 1.0	A
Power Dissipation	$P_d$	350	mW
Thermal resistance, junction to ambient air	$R_{\theta JA}$	357	°C/W
Junction temperature	$T_j$	150	°C
Storage temperature range	$T_{stg}$	-65-+150	°C

### ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)R}$	$I_R = 2.5\mu A$	75		V
Reverse voltage leakage current	$I_R$	$V_R = 70V$ $V_R = 20V$		2.5 25	$\mu A$ nA
Forward voltage	$V_F$	$I_F = 1mA$ $I_F = 10mA$ $I_F = 50mA$ $I_F = 150mA$		715 855 1000 1250	mV
Diode capacitance	$C_D$	$V_R = 0V, f = 1MHz$		2.0	pF
Reverse recovery time	$t_{rr}$	$I_F = I_R = 10mA, I_R = 1mA$ , $V_R = 5V, R_L = 100\Omega$		4	ns

### TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

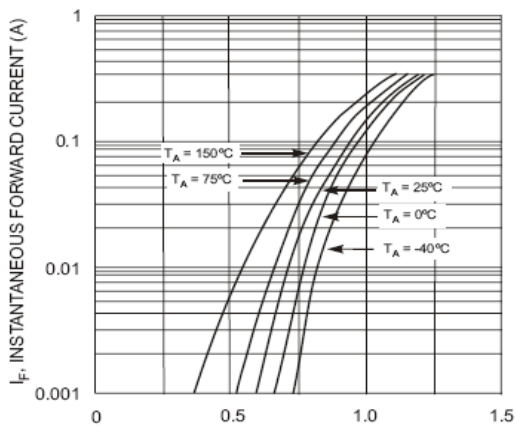


Fig. 1 Forward Characteristics

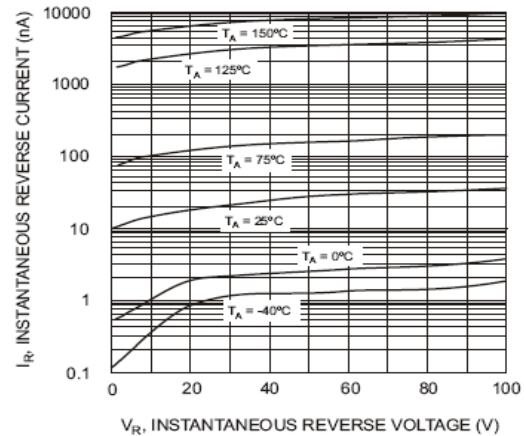


Fig. 2 Typical Reverse Characteristics

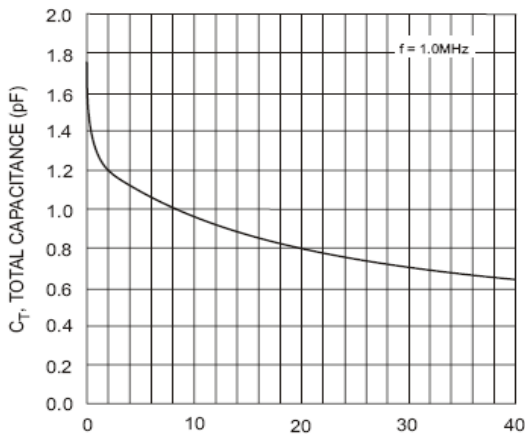


Fig. 3 Typical Capacitance vs. Reverse Voltage

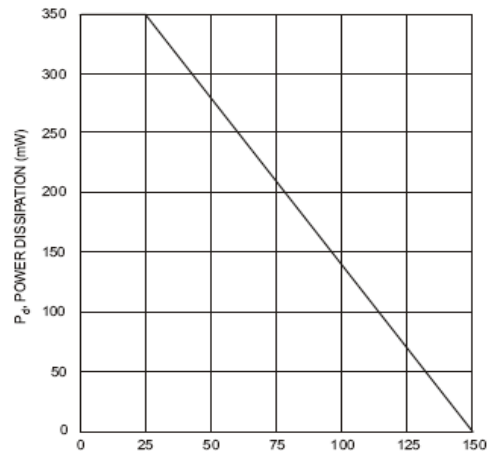


Fig. 4 Power Derating Curve

PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SOT-23	3000/REEL	90000	40X20X22	5.00	4.00