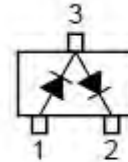


### FEATURES

Fast Switching Speed  
 For General Purpose Switching Applications  
 High Conductance



Marking Code: A7  
SOT-23 Plastic Package

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	85	V
Continuous Reverse Voltage	$V_R$	75	V
Continuous Forward Current (Double Diode Loaded)	$I_F$	125	mA
Continuous Forward Current (Single Diode Loaded)	$I_F$	215	mA
Repetitive Peak Forward Current	$I_{FRM}$	450	mA
Non-repetitive Peak Forward Surge Current	$I_{FSM}$	0.5 1 4.5	A
		at $t = 1\text{ s}$ at $t = 1\text{ ms}$ at $t = 1\text{ }\mu\text{s}$	
Power Dissipation	$P_{tot}$	350	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 65 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 1\text{ mA}$ at $I_F = 10\text{ mA}$ at $I_F = 50\text{ mA}$ at $I_F = 150\text{ mA}$	$V_F$	0.715 0.855 1 1.25	V
Reverse Current at $V_R = 25\text{ V}$ at $V_R = 75\text{ V}$ at $V_R = 25\text{ V}, T_j = 150\text{ }^\circ\text{C}$ at $V_R = 75\text{ V}, T_j = 150\text{ }^\circ\text{C}$	$I_R$	30 1 30 50	nA $\mu\text{A}$ $\mu\text{A}$ $\mu\text{A}$
Diode Capacitance at $V_R = 0, f = 1\text{ MHz}$	$C_d$	1.5	pF
Reverse Recovery Time at $I_F = I_R = 10\text{ mA}, I_R = 1\text{ mA}, R_L = 100$	$t_{rr}$	4	ns

### Typical Characteristics

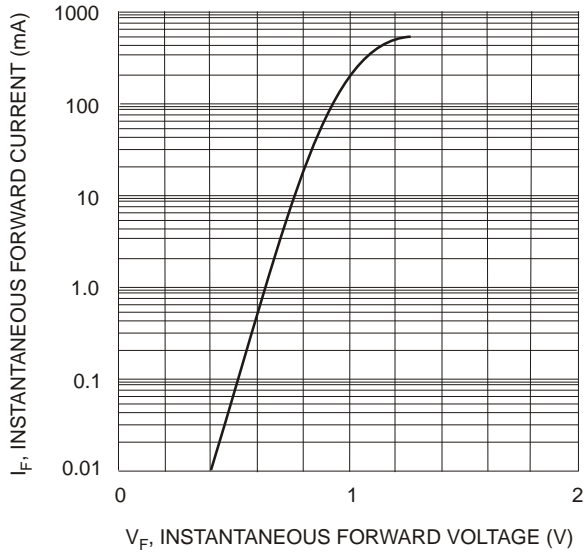


Fig. 1 Forward Characteristics

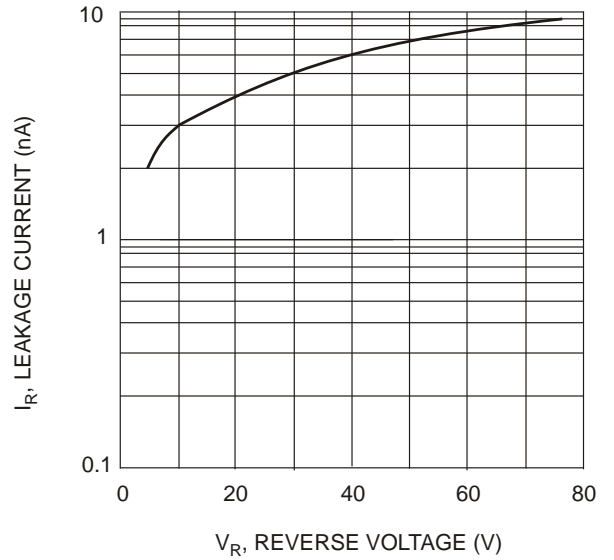


Fig. 2 Typical Leakage Current vs Reverse Voltage

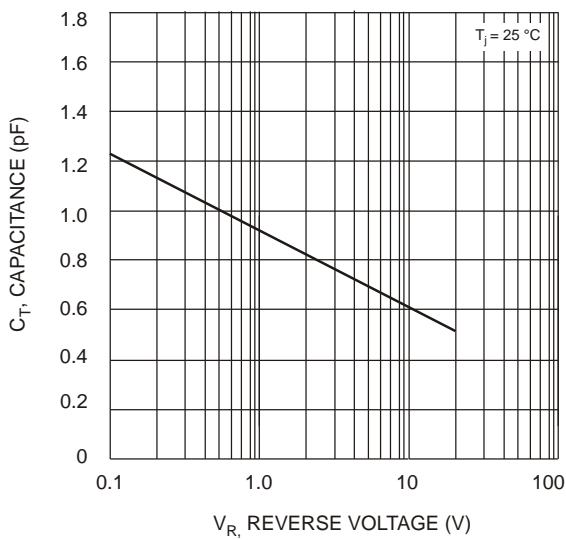


Fig. 3 Typical Total Capacitance vs Reverse Voltage



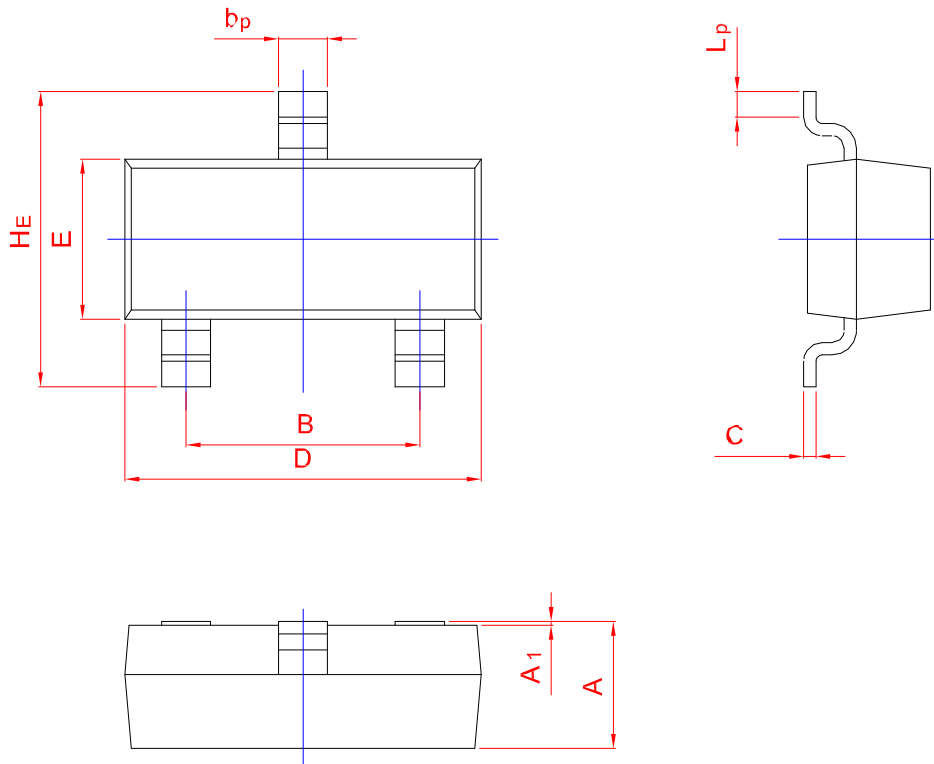
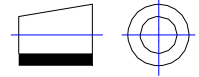
# BAV99

## Si ching Diode

### PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	bp	C	D	E	HE	A1	Lp
mm	1.40	2.04	0.50	0.19	3.10	1.65	3.00	0.100	0.50
	0.95	1.78	0.35	0.08	2.70	1.20	2.20	0.013	0.20