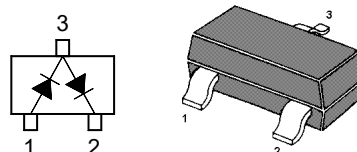


BAV99 SWITCHING DIODES

FEATURES

Fast Switching Speed
For General Purpose Switching Applications
High Conductance



Marking Code: A7
SOT-23 Plastic Package

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Continuous Reverse Voltage	V_R	100	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
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 $T_a = 25^\circ\text{C}$

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 $V_R = 25\text{ V}$, $T_j = 150^\circ\text{C}$ at $V_R = 75\text{ V}$, $T_j = 150^\circ\text{C}$	I_R	30 1 30 50	nA μA μA μA
Total Capacitance at $V_R = 0$, $f = 1\text{ MHz}$	C_T	1.5	pF
Reverse Recovery Time at $I_{rr} = 0.1 \times I_R$, $I_F = 10\text{ mA}$, $V_R = 6\text{ V}$, $R_L = 100\ \Omega$	t_{rr}	4	ns

Electrical Characteristics Curves

Fig 1. Power Dissipation vs Ambient Temperature

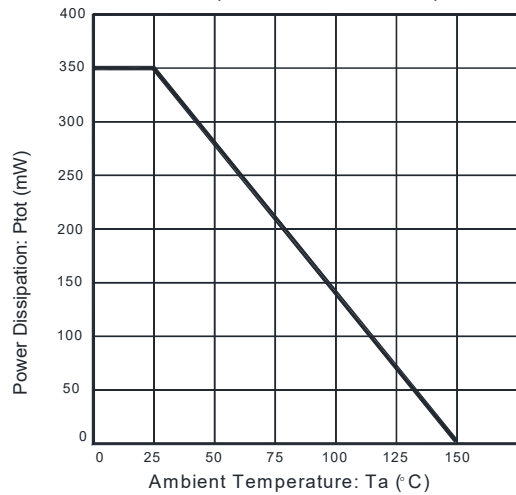


Fig 2. Total Capacitance vs. Reverse Voltage

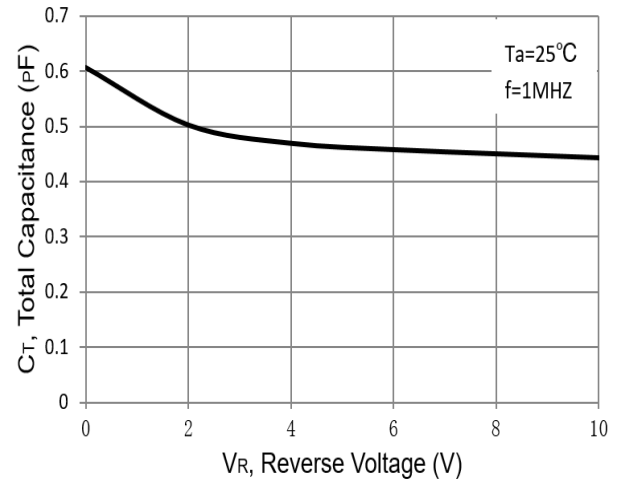


Fig 3. Reverse Current vs. Reverse Voltage

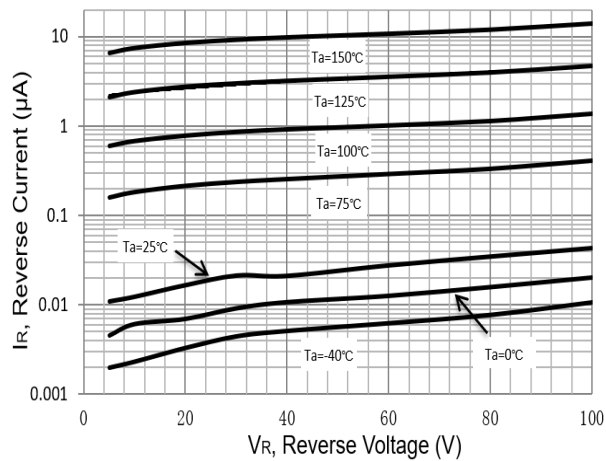
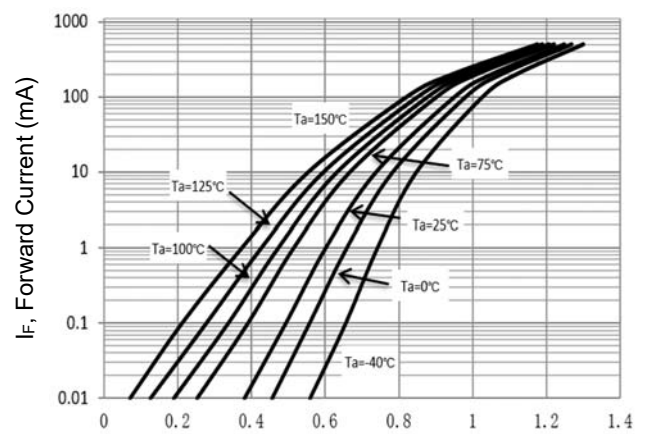
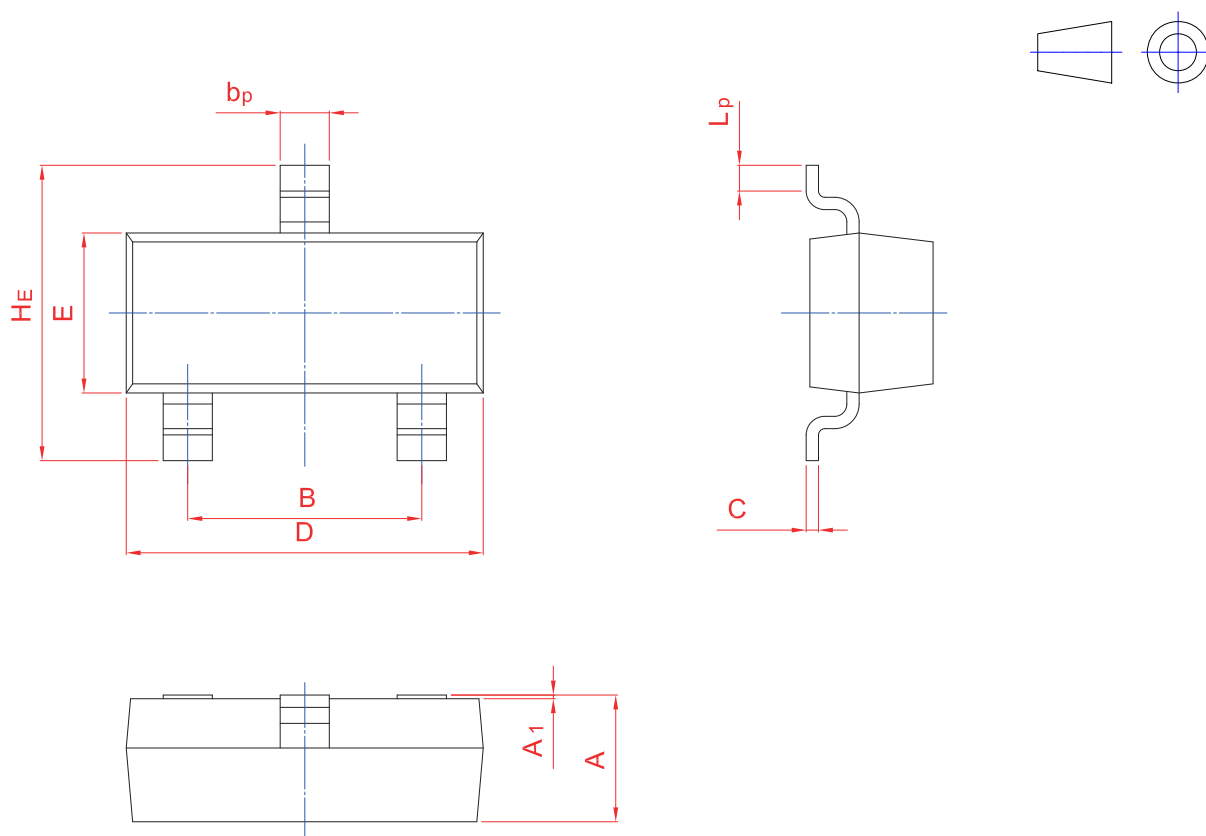


Fig 4. Forward Characteristics



PACKAGE OUTLINE

SOT-23



UNIT	A	B	bp	C	D	E	HE	A1	Lp
mm	1.40 0.89	2.04 1.78	0.51 0.30	0.19 0.08	3.10 2.70	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20