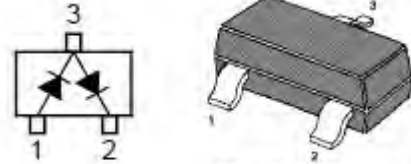




BAV99 SWITCHING DIODES

FEATURES

Fast Switching Speed
For General Purpose Switching Applications
High Conductance



SOT-23 Plastic Package

MARKING:A7

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

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

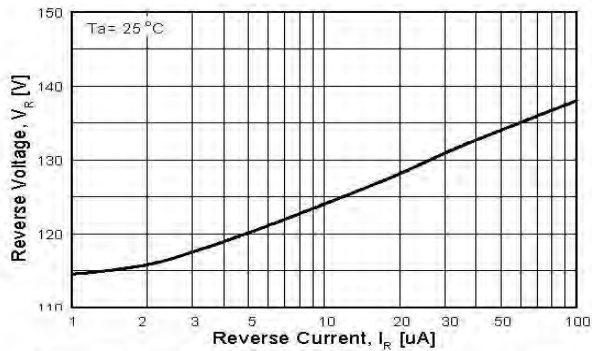
Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 1\text{ mA}$ at $I_F = 10\text{ mA}$ at $I_F = 50\text{ mA}$ at $I_F = 150\text{ mA}$	V_F	0.715 0.855 1 1.25	V
Reverse Current at $V_R = 25\text{ V}$ at $V_R = 75\text{ V}$ at $V_R = 25\text{ V}, T_j = 150^\circ\text{C}$ at $V_R = 75\text{ V}, T_j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



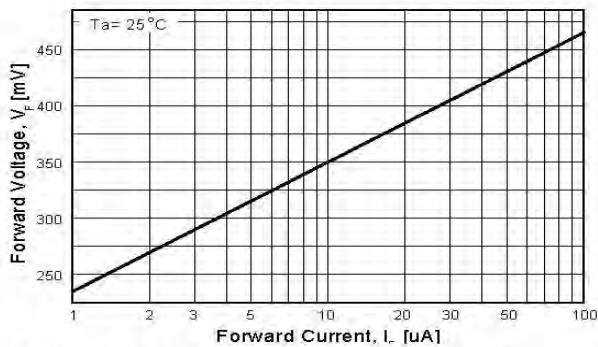
**RoHS
COMPLIANT**



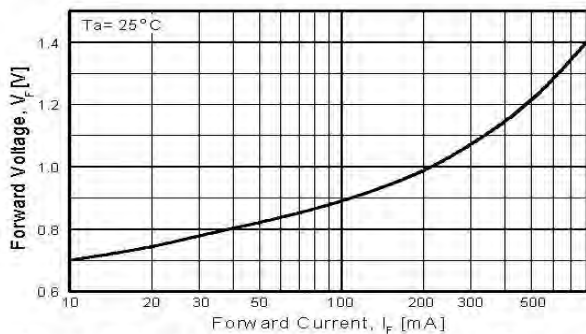
Typical Characteristics



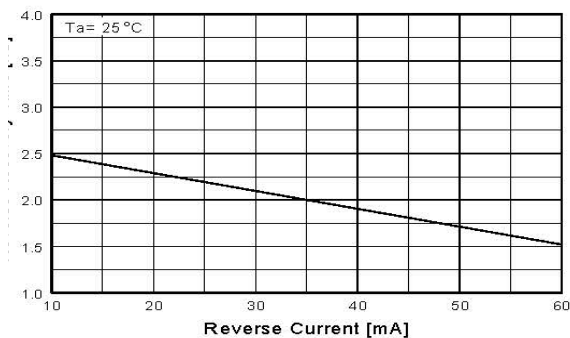
**Figure 1. Reverse Voltage vs Reverse Current
BV - 1.0 to 100uA**



**Figure 3. Forward Voltage vs Forward Current
VF - 1.0 to 100 uA**

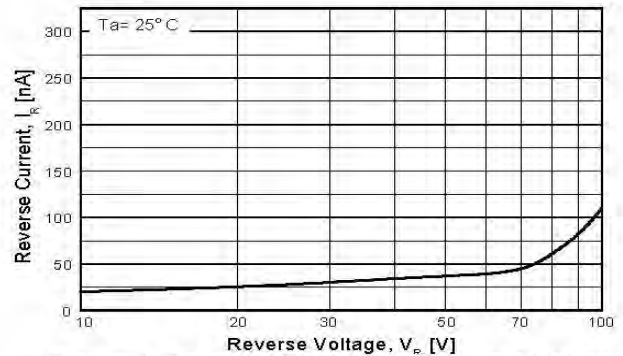


**Figure 5. Forward Voltage vs Forward Current
VF - 10 - 800 mA**

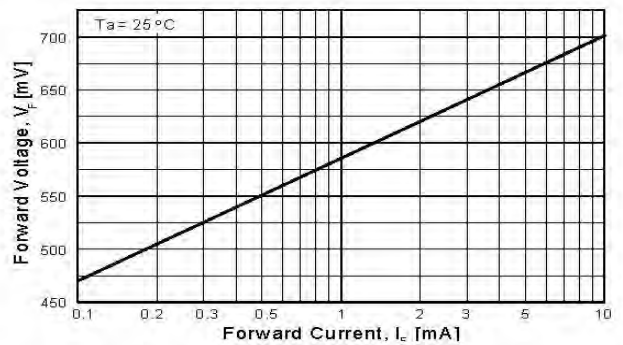


**Figure 7. Reverse Recovery Time
vs Reverse Current
TRR - IR 10 mA vs 60 mA**

BAV99



**Figure 2. Reverse Current vs Reverse Voltage
IR - 10 to 100 V**



**Figure 4. Forward Voltage vs Forward Current
VF - 0.1 to 10 mA**

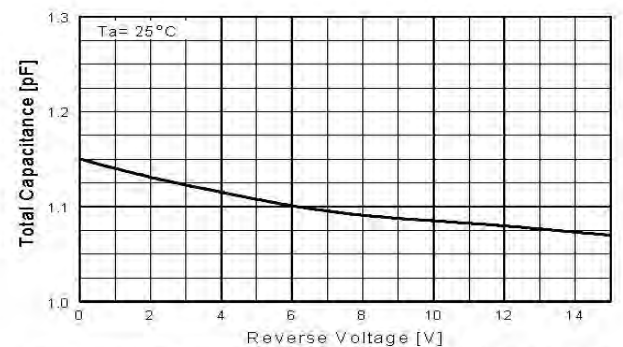
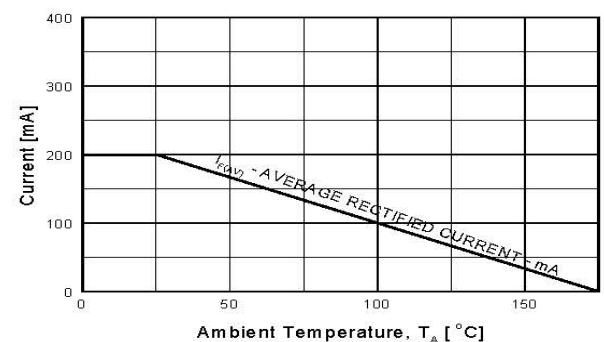


Figure 6. Total Capacitance vs Reverse Voltage

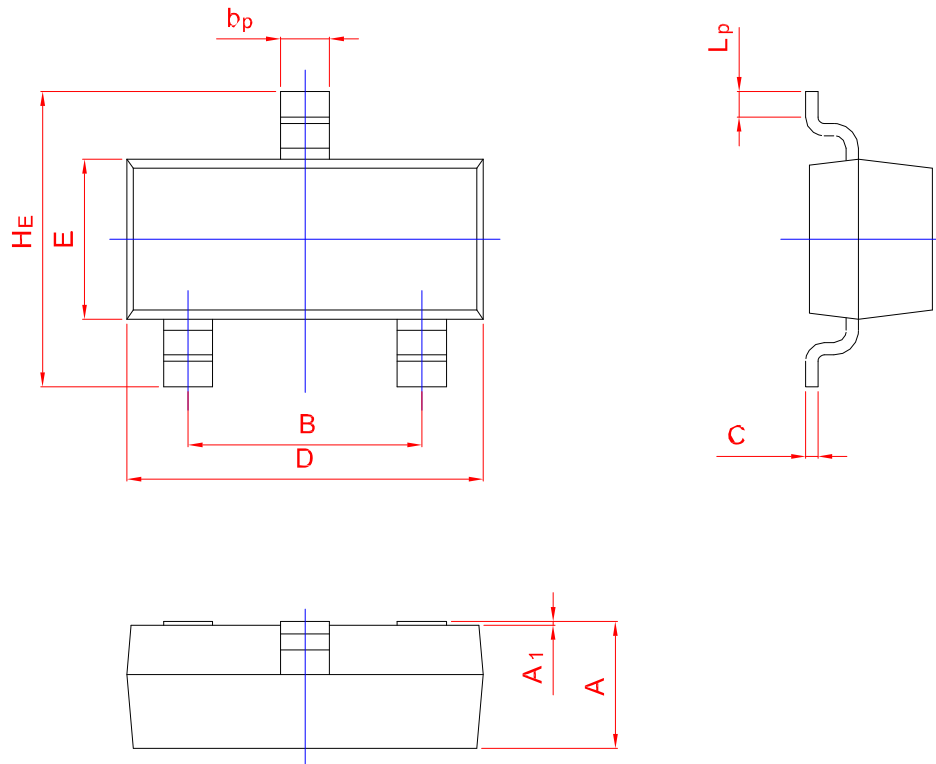
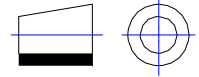


**Figure 8. Average Rectified Current ($I_{F(AV)}$)
versus Ambient Temperature (T_A)**

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	b_p	C	D	E	H_E	A_1	L_p
mm	1.40 0.95	2.04 1.78	0.50 0.35	0.19 0.08	3.10 2.70	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20