LITE-ON SEMICONDUCTORS

BAV99

SURFACE MOUNT
FAST SWITCHING DIODE

REVERSE VOLTAGE – 70 Volts
FORWARD CURRENT – 0.2 Ampere

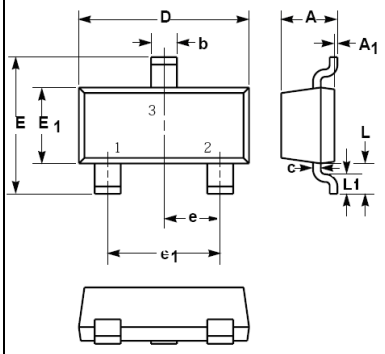
FEATURES

- Fast Switching Speed
- Ideally Suited for Automatic Insertion
- For general purpose switching applications

MECHANICAL DATA

- Case: SOT-23 Plastic
- Case Material: “Green” molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl)
- Moisture Sensitivity: Level 1 per J-STD-020D
- Lead Free in RoHS 2002/95/EC Compliant

SOT-23



SOT-23		
Dim.	Min.	Max.
A	0.90	1.15
A1	0.00	0.10
b	0.30	0.50
c	0.08	0.15
D	2.80	3.00
E	2.25	2.55
E1	1.20	1.40
e	0.95 Typ.	
e1	1.80	2.00
L	0.55 Ref.	
L1	0.30	0.50
Dimensions in millimeter		

Maximum Ratings & Thermal Characteristics @ T_A = 25℃ unless otherwise specified

Characteristic	Symbol	BAV99	Units
Non-Repetitive Peak Reverse Voltage DC Blocking Voltage	V_{RM} V_R	70	V
Forward Current	I_F	200	mA
Peak Forward Surge Current @t=10ms	I_{FSM}	500	mA
Power Dissipation	P_D	225	mW
Thermal Resistance, Junction to Ambient	$R_{\Theta JA}$	556	℃/W
Operating Temperature Range	T_J	150	℃
Storage Temperature Range	T_{STG}	-55~+150	℃

Electrical Characteristics @ T_A = 25℃ unless otherwise specified

Characteristic	Test Condition	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	I_R = 100uA	V_{BR}	70	--	--	V
Maximum Forward Voltage	I_F = 1mA I_F = 10mA I_F = 50mA I_F = 150mA	V_F	-- -- -- --	-- -- -- --	715 855 1000 1250	mV
Maximum DC Reverse Current at Rated DC Blocking Voltage	V_R = 75V	I_R	--	--	2.5	uA
Typical Diode Capacitance	V_R =0V,f=1MHz	C_D	--	--	1.5	pF
Reverse Recovery time	Irr=1mA, I_F=I_R=10mA, R_L=100Ω	trr	--	--	6	nS

RATING AND CHARACTERISTIC CURVES
BAV99

Fig.1 Typical Forward Characteristics

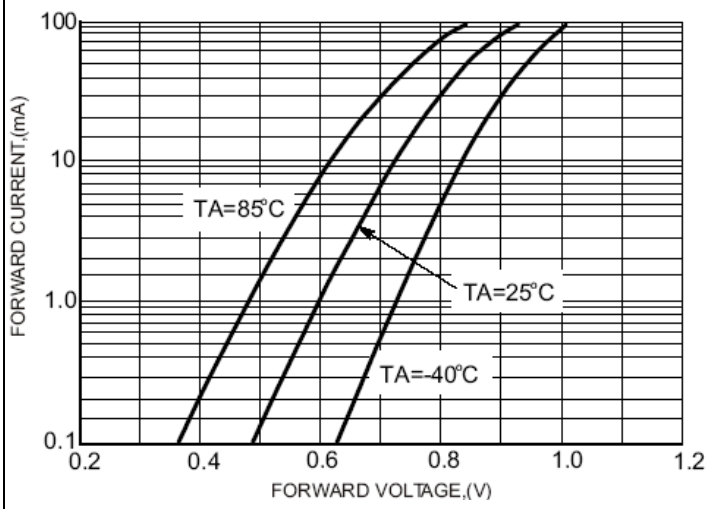


Fig.2 Typical Reverse Characteristics

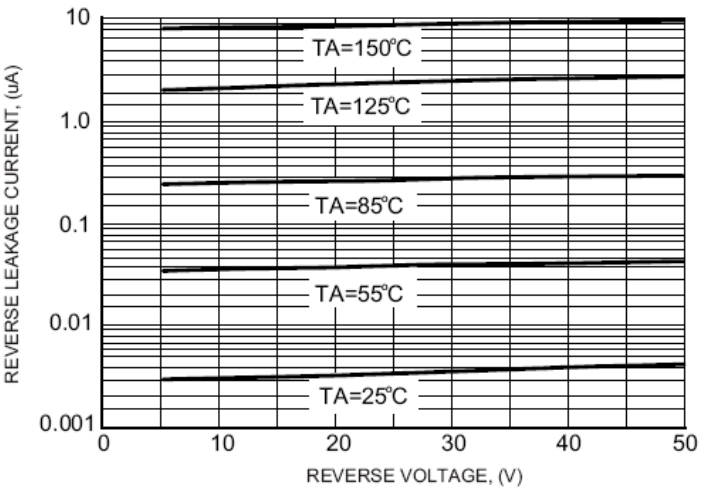
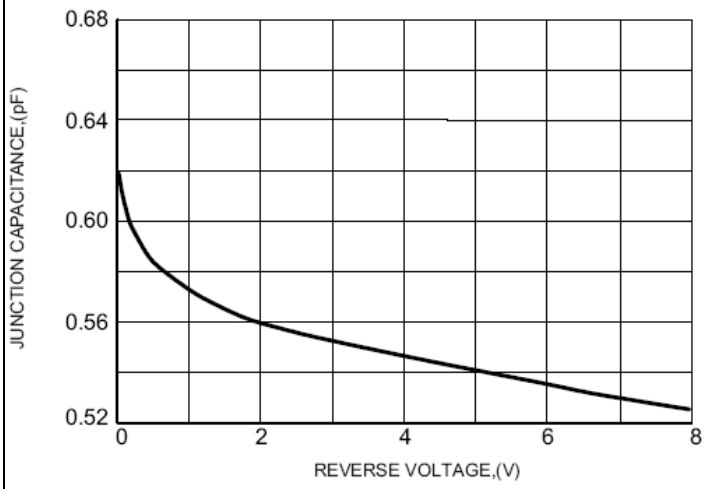
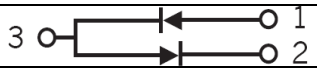


Fig.3 Total Capacitance vs. Reverse Voltage



Device Marking :

Device P/N	Marking	Equivalent Circuit Diagram
BAV99	A7	

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