BAV99(LS)

SURFACE MOUNT
FAST SWITCHING DIODE

REVERSE VOLTAGE – 70 Volts
FORWARD CURRENT – 0.2 Ampere

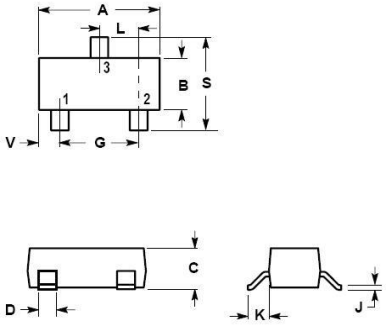
FEATURES

- Fast Switching Speed
- Ideally Suited for Automatic Insertion
- For general purpose switching applications
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

MECHANICAL DATA

- Package: SOT-23 Plastic
- Package 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	2.80	3.04
B	1.20	1.40
C	0.89	1.11
D	0.37	0.50
G	1.78	2.04
J	0.085	0.177
K	0.35	0.69
L	0.89	1.02
S	2.10	2.64
V	0.45	0.60
Dimensions in millimeter		

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

Characteristic	Symbol	BAV99	Unit
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_{thJA}	556	°C/W
Operating Temperature Range	T_J	150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

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 = 1V, f = 1MHz	C_D	--	--	1.5	pF
Reverse Recovery time	I_{rr} = 1mA, I_F = I_R = 10mA, R_L = 100Ω	t_{rr}	--	--	6	ns

RATING AND CHARACTERISTIC CURVES
BAV99

Fig.1 Typical Forward Characteristics

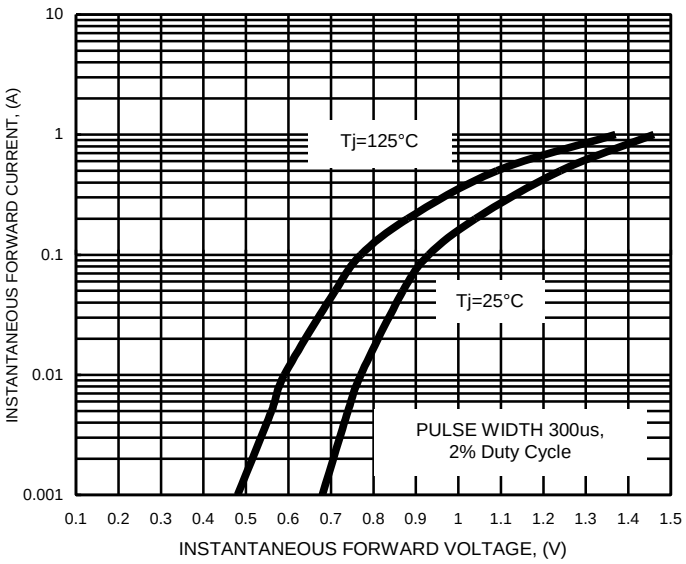


Fig.2 Typical Reverse Characteristics

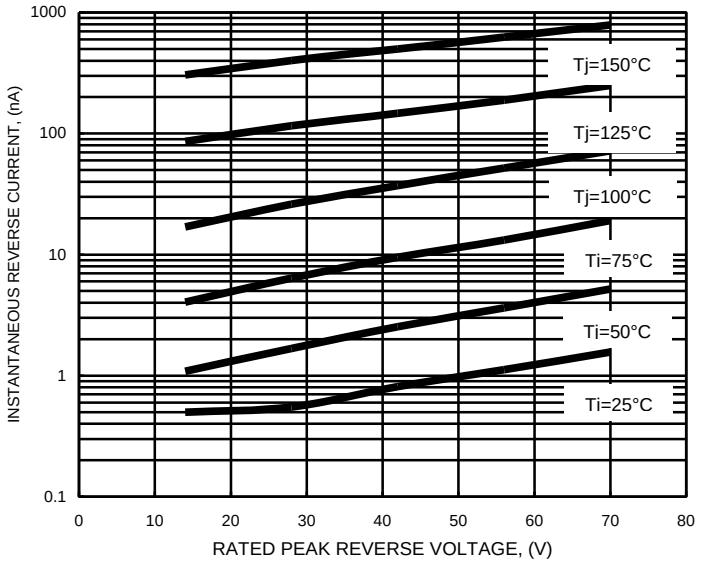
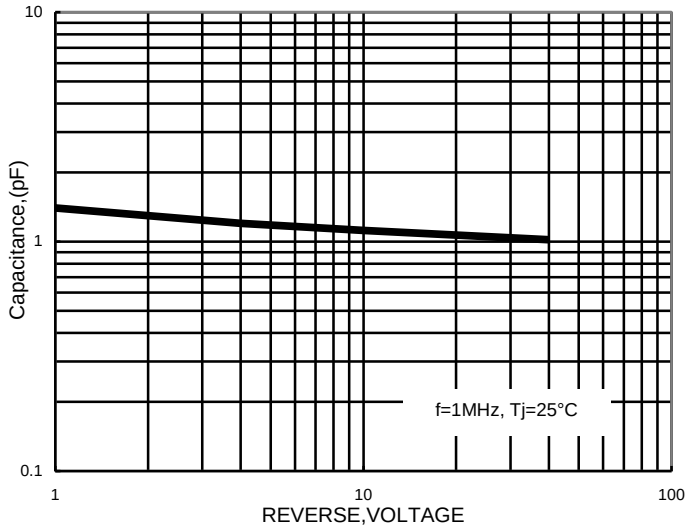


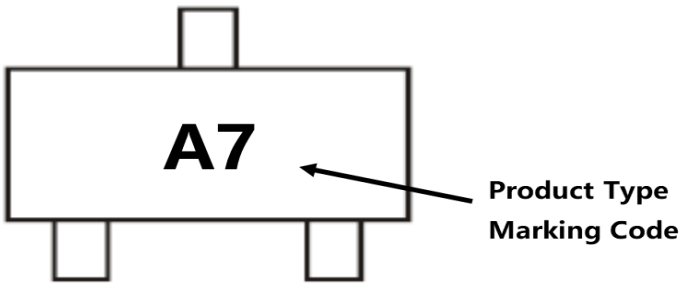
Fig.3 Total Capacitance vs. Reverse Voltage



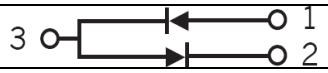
Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
BAV99	SOT-23	3000pcs	Tape & Reel

Marking Information :



Device Marking:

Device P/N	Marking	Equivalent Circuit Diagram
BAV99	A7	

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