LITE-ON SEMICONDUCTORS

BAV99T

SURFACE MOUNT
FAST SWITCHING DIODE

REVERSE VOLTAGE – 85 Volts
FORWARD CURRENT – 0.075 Ampere

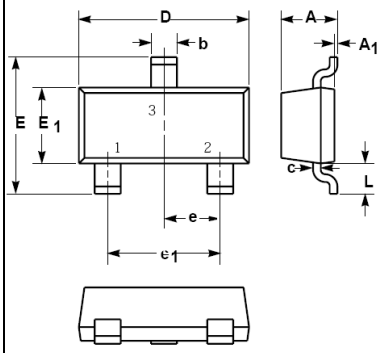
FEATURES

- Fast switching speed
- Ideally suited for automatic insertion
- For general purpose switching applications

MECHANICAL DATA

- Case: SOT-523 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-523



SOT-523		
Dim.	Min.	Max.
A	0.70	0.90
A1	0.00	0.10
b	0.25	0.325
c	0.10	0.20
D	1.50	1.70
E	1.45	1.75
E1	0.75	0.85
e	0.50 Typ.	
e1	0.90	1.10
L	0.55 Ref.	
Dimensions in millimeter		

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

Characteristic		Symbol	BAV99T	Units
Working Peak Reverse Voltage DC Blocking Voltage		V_R	85	V
Average Rectified Output Current		I_O	75	mA
Non-Repetitive Peak Forward Surge Current	@t=1.0us	I_{FSM}	4	A
Power Dissipation		P_D	200	mW
Thermal Resistance Junction to Ambient		$R_{\Theta JA}$	625	℃/W
Operating Temperature Range		T_J	150	℃
Storage Temperature Range		T_{STG}	-65~+150	℃

Electrical Characteristics @ T_A = 25℃ unless otherwise specified

Characteristic	Test Condition	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	I_R = 1uA	V_{BR}	85	--	--	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 V_R = 25V	I_R	-- --	-- --	2 0.03	uA
Typical Diode Capacitance	V_R =0V,f=1MHz	C_D	--	--	1.5	pF
Reverse Recovery time	Irr=1mA, I_R=I_F=10mA R_L=100Ω	trr	--	--	4	ns

RATING AND CHARACTERISTIC CURVES
BAV99T

Fig.1 Current Derating Curve

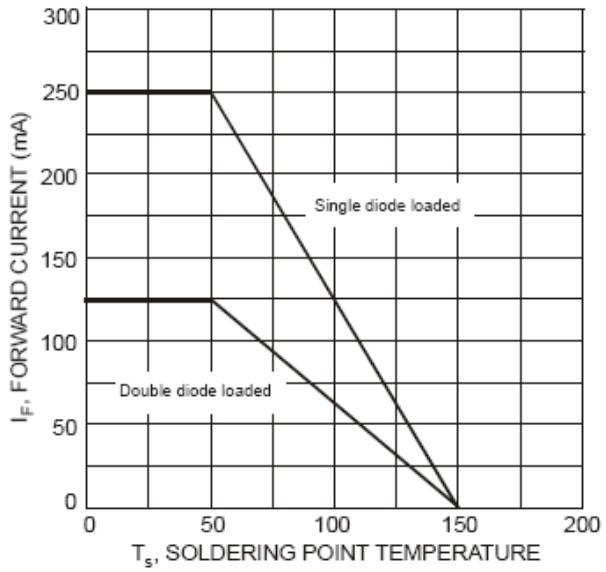


Fig.2 Typical Forward Characteristics

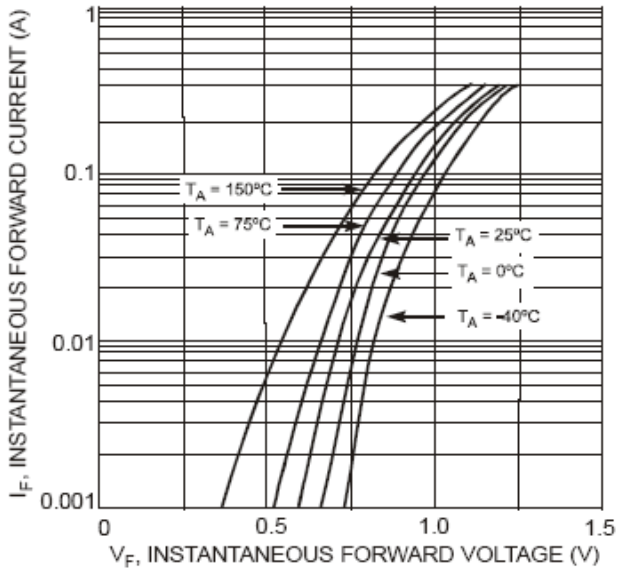
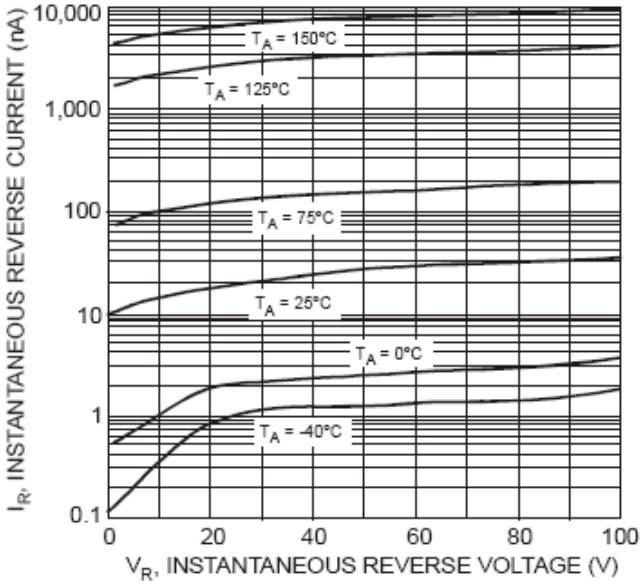
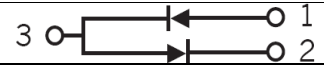


Fig.3 Typical Reverse Characteristics



Device Marking :

Device P/N	Marking code	Equivalent Circuit Diagram
BAV99T	JE	

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