

BAV101 THRU BAV103

SURFACE MOUNT FAST SWITCHING DIODE

Features

High Voltage Switching Diodes

Mechanical Data

- Case:Molded Plastic,SOD-123
- Epoxy:UL 94V-0 rate flame retardant
- Terminals:Plated Leads Solderable per MIL-STD-750,Method-2026
- Mounting Position : Any.
- Marking:

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Туре	BAV101	BAV102	BAV103
MARKING	T2	Т3	T4



Dimensions in inches and (millimeters)

Maximum Ratings Maximum Ratings (Rating at 25°C ambient temperature unless otherwise specified.)

Parameter		Symbol	Value	Unit
Repetitive Peak Reverse Voltage	BAV101 BAV102 BAV103	V _{RRM}	120 200 250	V
Reverse Voltage	BAV101 BAV102 BAV103	V _R	100 150 200	V
Continuous Forward Current		I _F	250	mA
Repetitive Peak Forward Current	I _{FRM}	625	mA	
Non-repetitive Peak Forward Surge Current	at t = 1 s at t = 100 µs at t = 1 µs	I _{FSM}	1 3 9	А
Total Power Dissipation		P _{tot}	400	mW
Junction Temperature		Tj	175	°C
Storage Temperature Range		T _{stg}	- 65 to + 175	°C

Electrical Characteristics (Rating at 25°C ambient temperature unless otherwise specified.)

Parameter		Symbol	Max.	Unit
Forward Voltage at I _F = 100 mA at I _F = 200 mA		V _F	1 1.25	V
Reverse Current at $V_R = 100 V$ at $V_R = 150 V$ at $V_R = 200 V$ at $V_R = 100 V$, $T_j = 150 °C$ at $V_R = 150 V$, $T_j = 150 °C$ at $V_R = 200 V$, $T_j = 150 °C$	BAV101 BAV102 BAV103 BAV101 BAV102 BAV103	I _R	100 100 100 100 100 100	nA nA μA μA μA
Diode Capacitance at V _R = 0, f = 1 MHz		C _d	5	pF
Reverse Recovery Time at $I_F = I_R = 30$ mA, $I_{rr} = 3$ mA, $R_L = 100 \Omega$		t _{rr}	50	ns



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Rating And Characteristic Curves



Device mounted on an FR4 printed-circuit board.

Fig.1 Maximum permissible continuous forward current as a function of ambient temperature.



(1) $T_j = 150 \text{ °C}$; typical values.

(2) $T_j = 25 \circ C$; typical values.

(3) $T_j = 25 \ ^{\circ}C$; maximum values.

Fig.2 Forward current as a function of forward voltage.



Based on square wave currents. $T_j = 25 \ ^{\circ}C$ prior to surge.

Fig.3 Maximum permissible non-repetitive peak forward current as a function of pulse duration.



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f = 1 MHz; T_i = 2 5 $^{\circ}$ C.

Fig.4 Reverse current as a function of junction temperature.

Fig.5 Diode capacitance as a function of reverse voltage; typical values.



- (1) BAV103.
- (2) BAV102.
- (3) BAV101. (4) BAV100.
- Fig.6 Maximum permissible continuous reverse voltage as a function of ambient temperature.

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