

# BAV19W, BAV20W, BAV21W

## Silicon Epitaxial Planar Diodes

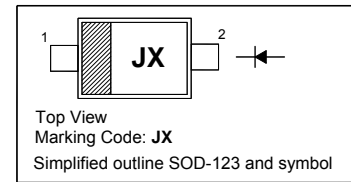
High Voltage Switching Diode

### Features

- Fast switching speed
- Surface mount package ideally suited for automatic insertion

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

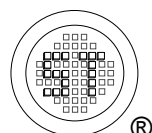


### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

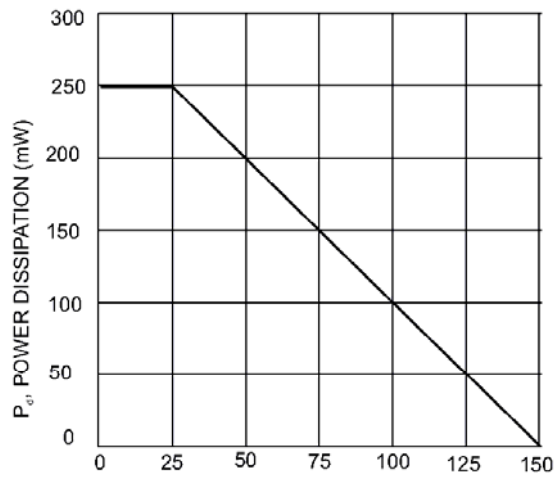
Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	120 200 250	V
Reverse Voltage	$V_R$	100 150 200	V
Average Rectified Forward Current	$I_{F(AV)}$	200	mA
Forward Continuous Current	$I_{FM}$	400	mA
Repetitive Peak Forward Current	$I_{FRM}$	625	mA
Non-repetitive Peak Forward Surge Current	$I_{FSM}$	2.5 0.5	A
Power Dissipation	$P_d$	250	mW
Operating and Storage Temperature Range	$T_j, T_{stg}$	- 65 to + 150	$^\circ\text{C}$

### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

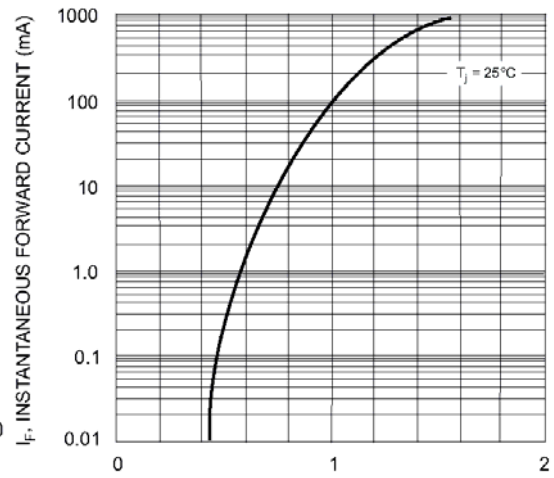
Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 100\text{ mA}$ at $I_F = 200\text{ mA}$	$V_F$	- -	1 1.25	V
Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$	$V_{(BR)R}$	120 200 250	- - -	V
Reverse Current at $V_R = 100\text{ V}$ at $V_R = 150\text{ V}$ at $V_R = 200\text{ V}$	$I_R$	- - -	100 100 100	nA
Total Capacitance at $V_R = 0$ , $f = 1\text{ MHz}$	$C_T$	-	5	pF
Reverse Recovery Time at $I_F = I_R = 30\text{ mA}$ , $I_{rr} = 0.1I_R$ , $R_L = 100\text{ }\Omega$	$t_{rr}$	-	50	ns



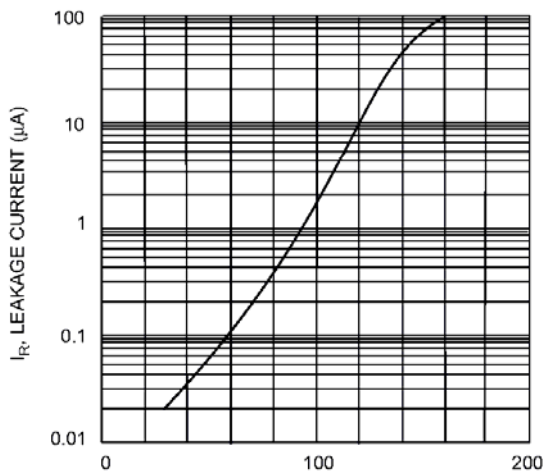
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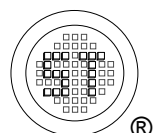
$T_A$ , AMBIENT TEMPERATURE (°C)  
Fig. 1 Power Derating Curve



$V_F$ , INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig. 2 Typical Forward Characteristics



$T_j$ , JUNCTION TEMPERATURE (°C)  
Fig. 3 Leakage Current vs. Junction Temperature

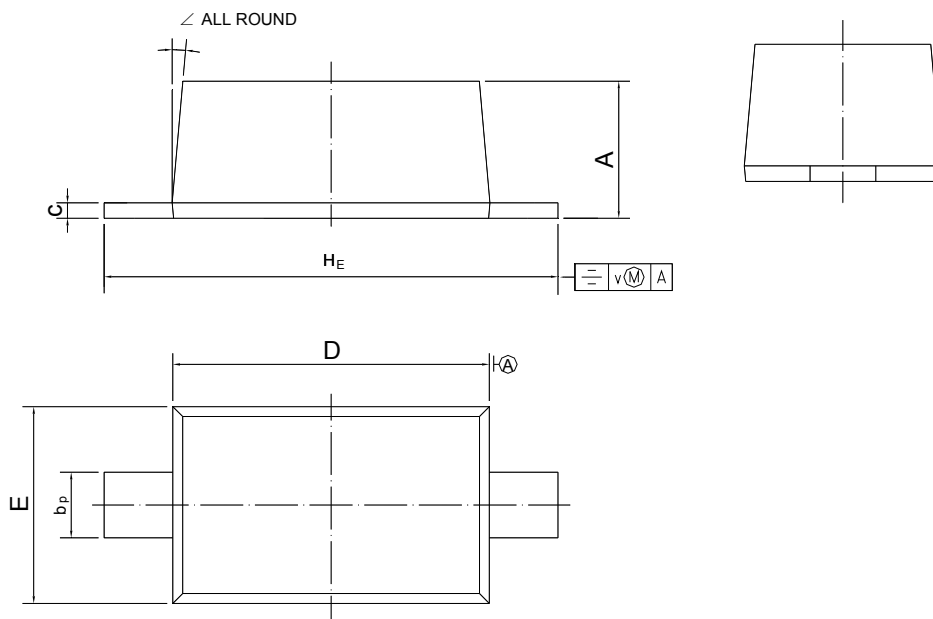


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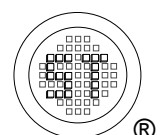
## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123



UNIT	A	$b_p$	c	D	E	$H_E$	v	$\sphericalangle$
mm	1.15 1.05	0.6 0.5	0.135 0.100	2.7 2.6	1.65 1.55	3.85 3.55	0.2	5°



Dated : 15/06/2009

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