

BAV19W, BAV20W, BAV21W-AH

Silicon Epitaxial Planar Diodes

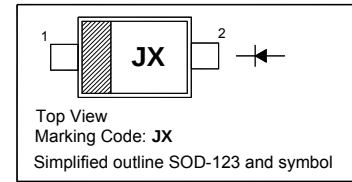
High Voltage Switching Diode

Features

- Fast switching speed
- Surface mount package ideally suited for automatic insertion
- AEC-Q101 is Available
- Halogen and Antimony Free(HAF), RoHS compliant

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

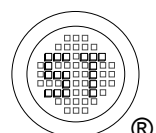


Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter		Symbol	Value	Unit
Repetitive Peak Reverse Voltage	BAV19W	V_{RRM}	120	V
	BAV20W		200	
	BAV21W		250	
Reverse Voltage	BAV19W	V_R	100	V
	BAV20W		150	
	BAV21W		200	
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	at $t = 1\text{ ms}$	I_{FSM}	2.5	A
	at $t = 1\text{ s}$		0.5	
Power Dissipation		P_d	250	mW
Operating and Storage Temperature Range		T_j, T_{stg}	- 65 to + 150	$^\circ\text{C}$

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

Parameter		Symbol	Min.	Max.	Unit
Forward Voltage	at $I_F = 100\text{ mA}$	V_F	-	1	V
	at $I_F = 200\text{ mA}$		-	1.25	
Reverse Breakdown Voltage	at $I_R = 100\text{ }\mu\text{A}$	$V_{(BR)R}$	120	-	V
			200	-	
			250	-	
Reverse Current	at $V_R = 100\text{ V}$	I_R	-	100	nA
	at $V_R = 150\text{ V}$		-	100	
	at $V_R = 200\text{ V}$		-	100	
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



BAV19W, BAV20W, BAV21W-AH

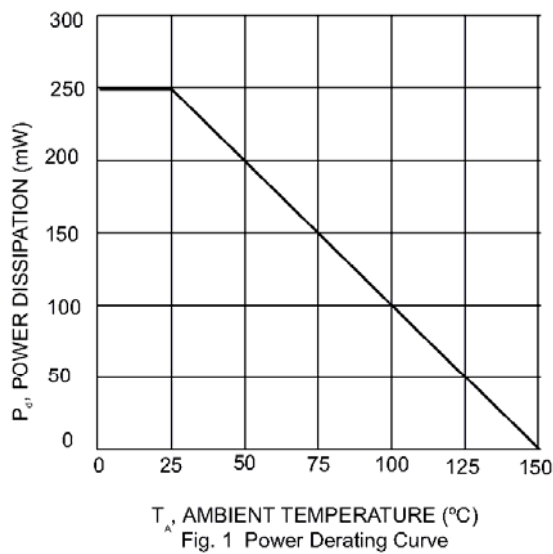


Fig. 1 Power Derating Curve

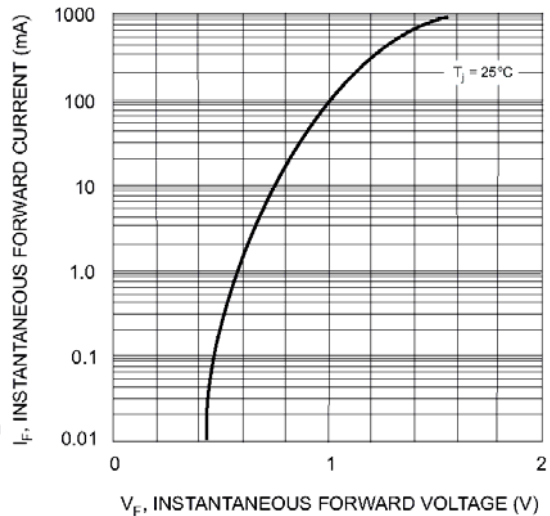


Fig. 2 Typical Forward Characteristics

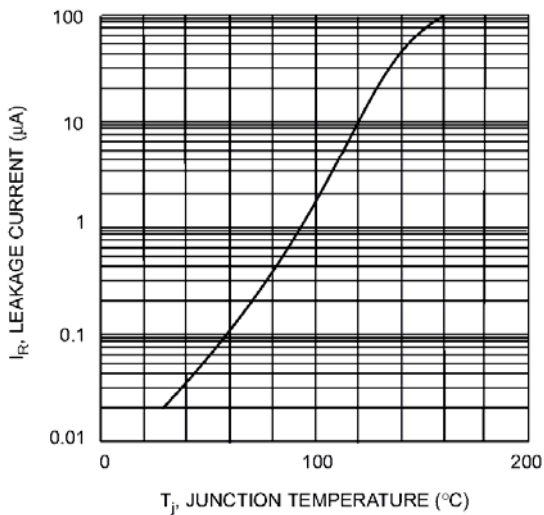
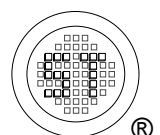


Fig. 3 Leakage Current vs Junction Temperature

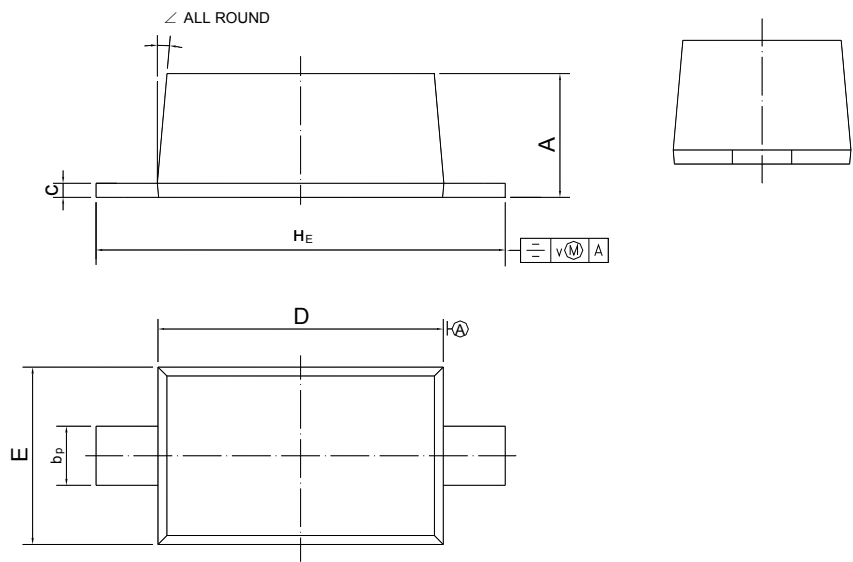


BAV19W, BAV20W, BAV21W-AH

PACKAGE OUTLINE

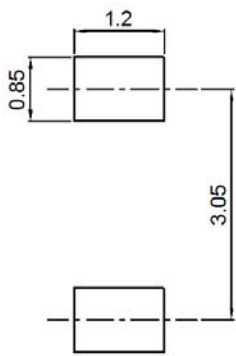
Plastic surface mounted package; 2 leads

SOD-123



UNIT	A	b _p	c	D	E	H _E	v	∠
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°

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	(inch)	mm	(inch)	
SOD-123	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

