

BAV19WS, BAV20WS, BAV21WS

Silicon Epitaxial Planar Diodes

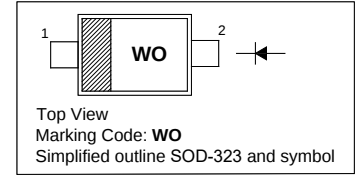
High Voltage Switching Diode

Features

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

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

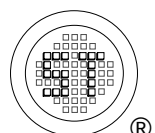


Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter		Symbol	Value	Unit
Repetitive Peak Reverse Voltage	BAV19WS BAV20WS BAV21WS	V_{RRM}	120 200 250	V
Reverse Voltage	BAV19WS BAV20WS BAV21WS	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	at $t = 1\ \mu\text{s}$ at $t = 1\ \text{s}$	I_{FSM}	2.5 0.5	A
Power Dissipation		P_{tot}	200	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
Reverse Breakdown Voltage at $I_R = 100\ \mu\text{A}$	BAV19WS BAV20WS BAV21WS	$V_{(BR)R}$	120 200 250	- - -	V
Reverse Current at $V_R = 100\ \text{V}$ at $V_R = 150\ \text{V}$ at $V_R = 200\ \text{V}$	BAV19WS BAV20WS BAV21WS	I_R	- - -	100 100 100	nA
Forward Voltage at $I_F = 100\ \text{mA}$ at $I_F = 200\ \text{mA}$		V_F	- -	1 1.25	V
Total Capacitance at $V_R = 0, f = 1\ \text{MHz}$		C_T	-	5	pF
Reverse Recovery Time at $I_F = I_R = 30\ \text{mA}, I_{RR} = 0.1 \times I_R, R_L = 100\ \Omega$		t_{rr}	-	50	ns



BAV19WS, BAV20WS, BAV21WS

Electrical Characteristics Curves

Fig 1. V_R characteristics

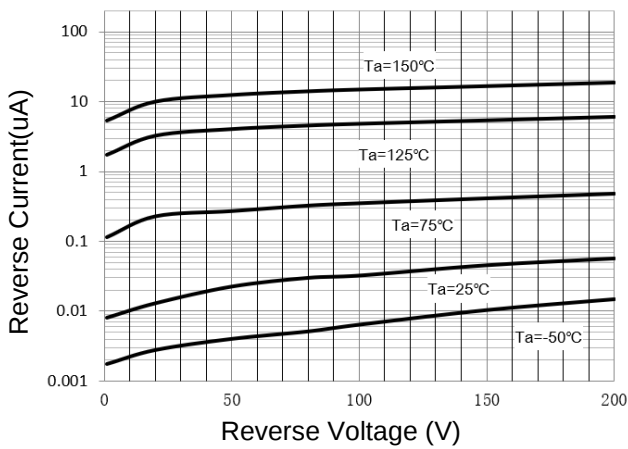


Fig 2. V_F characteristics

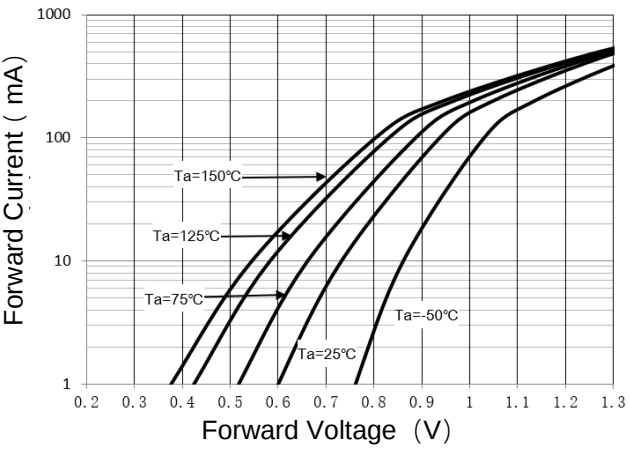


Fig 3. IFSM Curve

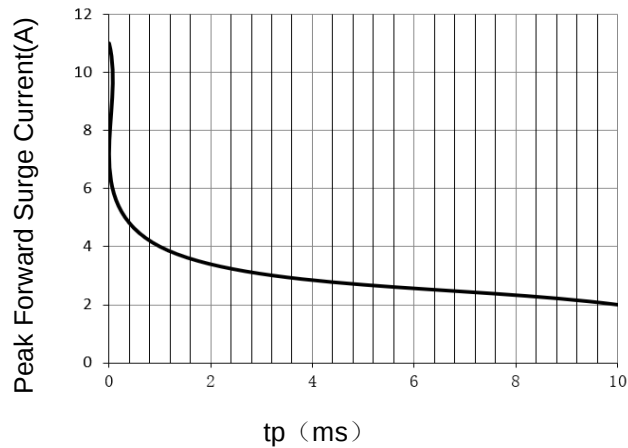
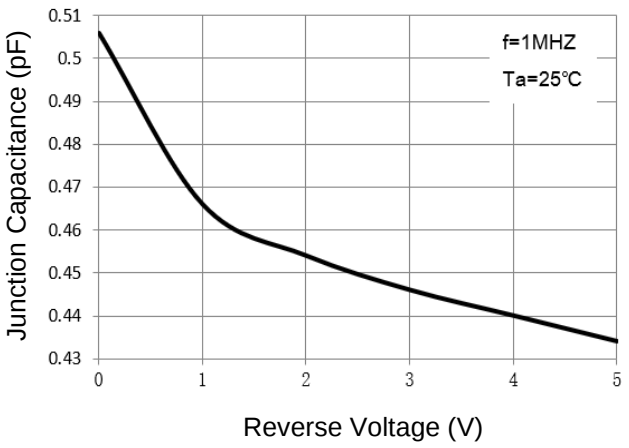


Fig 4. Junction Capacitance

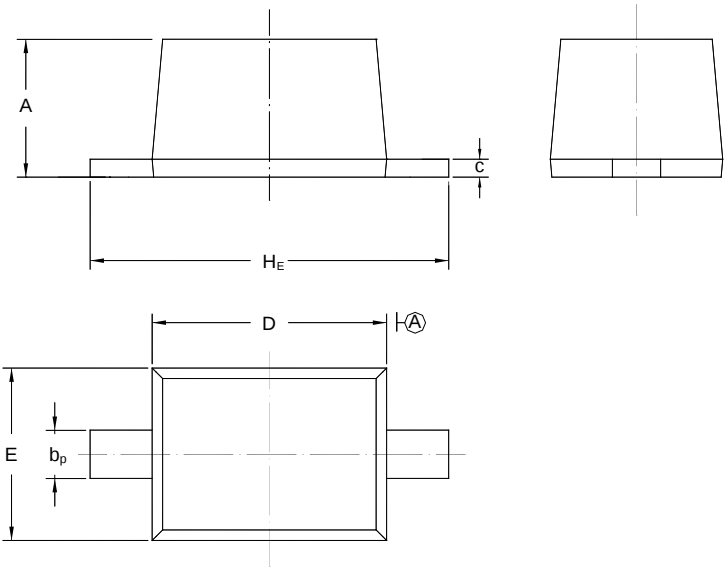


BAV19WS, BAV20WS, BAV21WS

PACKAGE OUTLINE

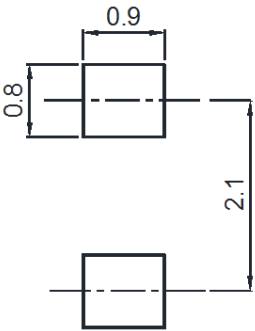
Plastic surface mounted package; 2 leads

SOD-323



UNIT	A	b _p	C	D	E	H _E
mm	1.10 0.80	0.40 0.25	0.15 0.10	1.80 1.60	1.35 1.15	2.80 2.30

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-323	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

Marking information

" III " = Cathode line

" WO " = Part No.

Font type: Arial

