



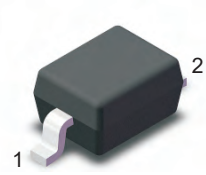
# BAV19WS~BAV21WS

## Silicon Epitaxial Planar Switching Diode

### Features

- For surface mount applications
- Glass passivated chip junction
- Low profile package
- Fast reverse recovery time
- Lead free in comply with EU RoHS 2011/65/EU directive

### SOD-323



1.Cathode —|<— 2.Anode

### Marking Code:

BAV19WS: A8

BAV20WS: T2

BAV21WS: T3

### Absolute Maximum Ratings at $T_A = 25\text{ }^\circ\text{C}$

Parameter		Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	BAV19WS	$V_{RRM}$	120	V
	BAV20WS		200	
	BAV21WS		250	
Maximum RMS Voltage	BAV19WS	$V_{RMS}$	100	V
	BAV20WS		150	
	BAV21WS		200	
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	$I_{FSM}$	1	A
	at t =1 ms		3	
	at t =1 $\mu$ s		9	
Power Dissipation		$P_D$	500	mW
Junction Temperature		$T_J$	500	$^\circ\text{C}$
Storage Temperature Range		$T_{STG}$	-55 to +150	$^\circ\text{C}$



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

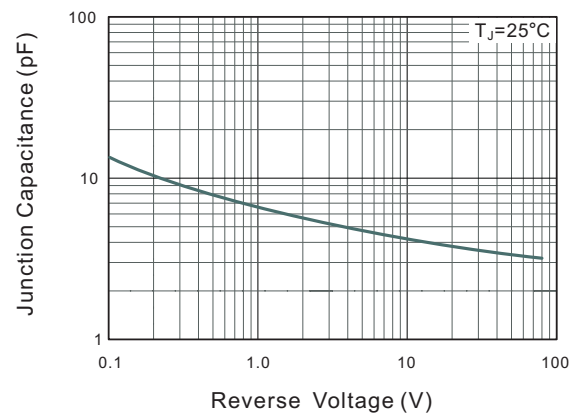
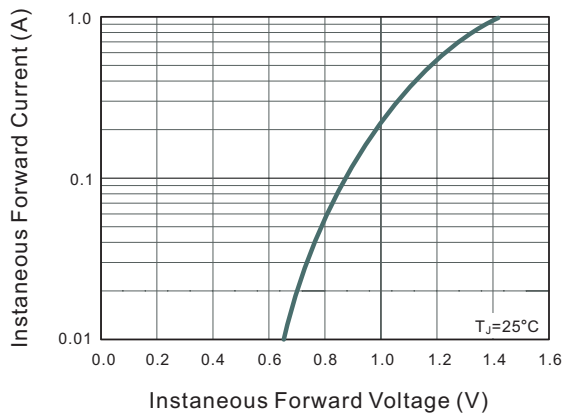
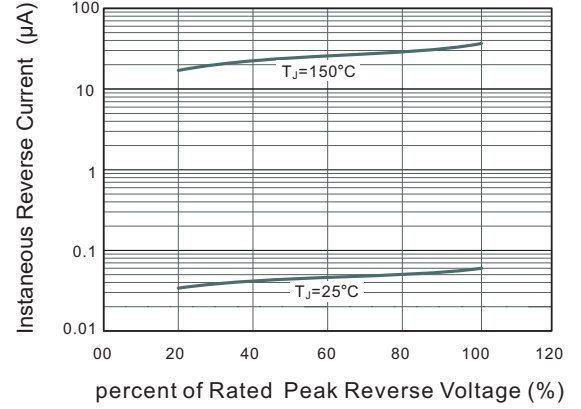
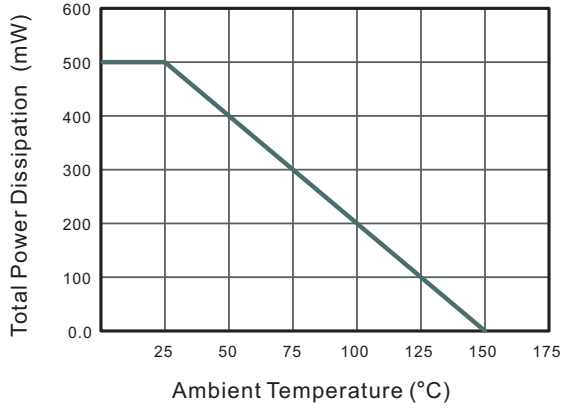
Parameter		Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$	BAV19WS	$V_{(BR)R}$	120	--	V
	BAV20WS		200	--	
	BAV21WS		250	--	
Maximum Forward Voltage at $I_F = 100\text{ mA}$ at $I_F = 200\text{ mA}$		$V_F$	--	1	V
			--	1.25	
Maximum DC Reverse Current at Rated DC Blocking Voltage at $T_A = 25\text{ }^\circ\text{C}$ at $T_A = 150\text{ }^\circ\text{C}$		$I_R$	--	0.1	$\mu\text{A}$
			--	100	
Typical Junction Capacitance at $V_R = 4\text{ V}$ , $f = 1\text{ MHz}$		$C_j$	--	5	pF
Maximum Reverse Recovery Time at $I_F = 0.5\text{ A}$ , $I_{rr} = 0.25\text{ A}$ , $I_R = 1\text{ A}$		$T_{rr}$	--	50	nS



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### Typical Characteristic Curves





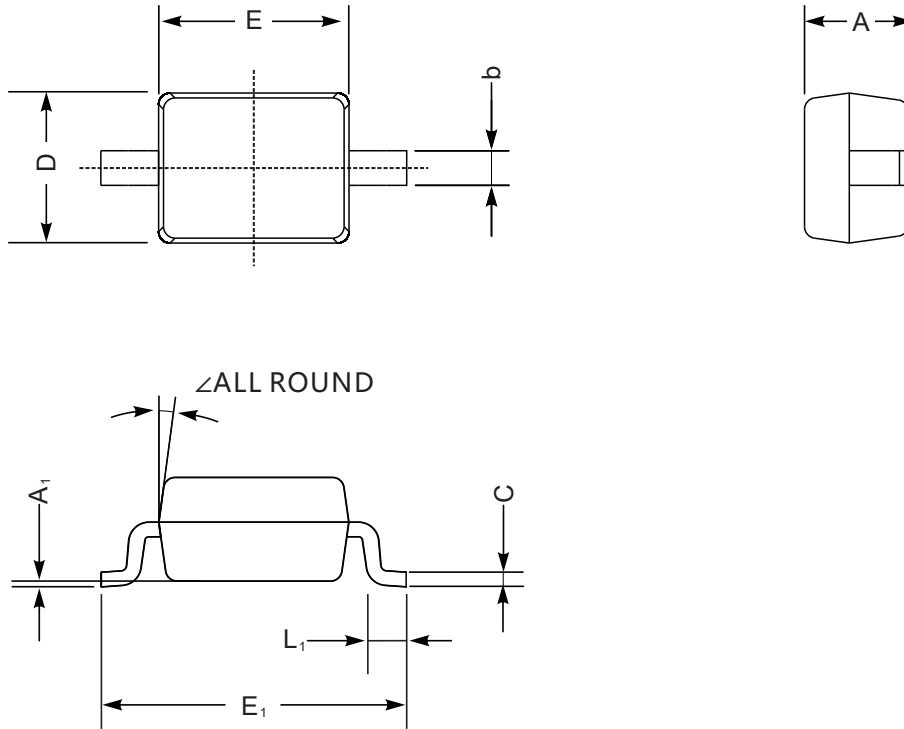
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## Silicon Epitaxial Planar Switching Diode

### Package Outline

SOD-323

Dimensions in mm



UNIT		A	C	D	E	E <sub>1</sub>	b	L <sub>1</sub>	A <sub>1</sub>	∠
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2	9°
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—	
mil	max	43	5.9	55	70	108	16	16	8	
	min	32	3.1	47	63	100	9.8	7.9	—	