



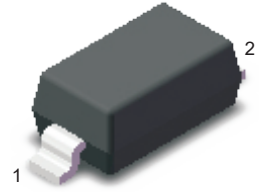
# BAV19W~BAV21W

## Silicon Epitaxial Planar Switching Diode

### Features

- Fast switching speed
- Glass passivated chip junction
- Surface mount package ideally suited for automatic insertion

SOD-123



1.Cathode  2.Anode

### Marking Code:

BAV19W: A8

BAV20W: T2

BAV21W: T3

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

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	BAV19W	120	V
	BAV20W	200	
	BAV21W	250	
Maximum RMS Voltage	BAV19W	100	V
	BAV20W	150	
	BAV21W	200	
Continuous Forward Current	$I_F$	250	mA
Repetitive Peak Forward Current	$I_{FRM}$	625	mA
Non-repetitive Peak Forward Surge Current	at $t = 1\text{ s}$	1	A
	at $t = 1\text{ ms}$	3	
	at $t = 1\text{ }\mu\text{s}$	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 $T_A = 25\text{ }^\circ\text{C}$

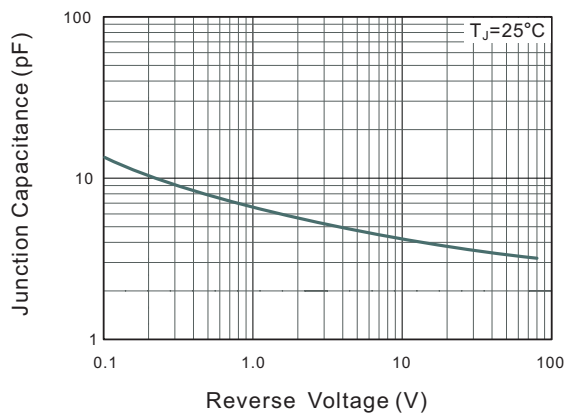
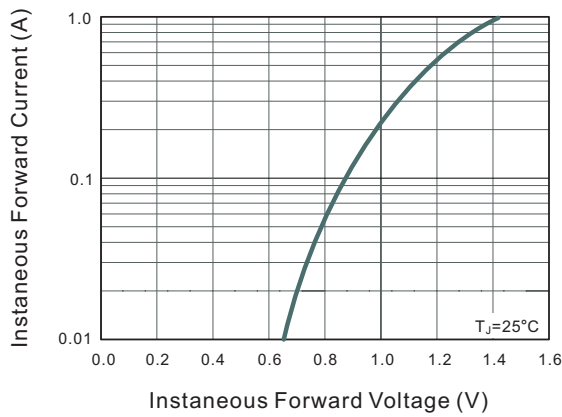
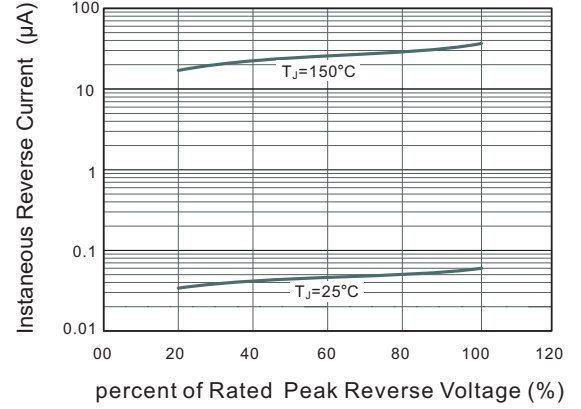
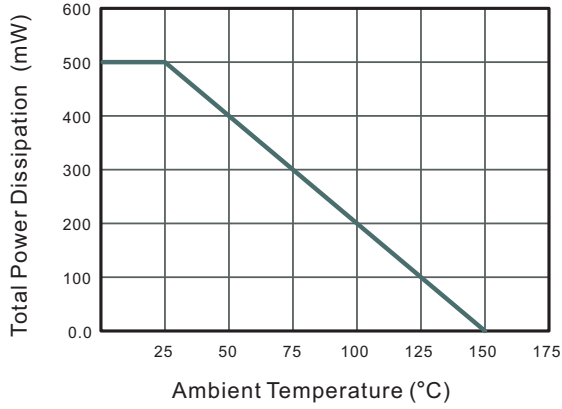
Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$	BAV19W BAV20W BAV21W $V_{(BR)R}$	120 200 250	-- -- --	V
Maximum Forward Voltage at $I_F = 100\text{ mA}$ at $I_F = 200\text{ mA}$	$V_F$	-- --	1 1.25	V
Maximum DC Reverse Current at Rated DC Blocking Voltage at $T_A = 25\text{ }^\circ\text{C}$ at $T_A = 150\text{ }^\circ\text{C}$	$I_R$	-- --	0.1 100	$\mu\text{A}$
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





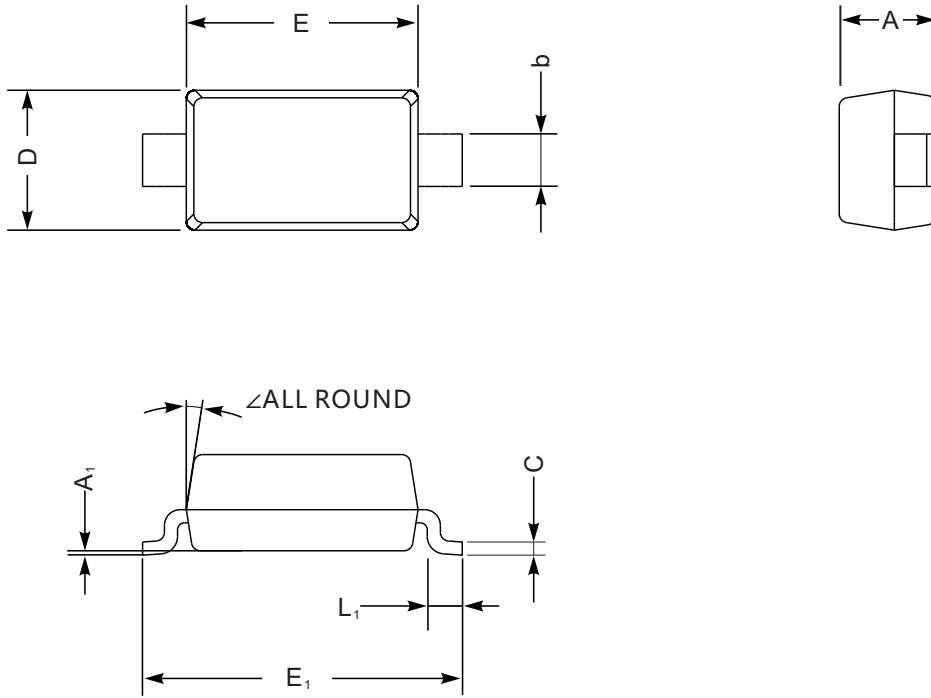
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### Package Outline

SOD-123

Dimensions in mm



UNIT		A	C	D	E	E <sub>1</sub>	L <sub>1</sub>	b	A <sub>1</sub>	∠
mm	max	1.3	0.22	1.8	2.8	3.9	0.45	0.7	0.2	9°
	min	0.9	0.09	1.5	2.5	3.6	0.25	0.5	—	
mil	max	51	8.7	71	110	154	18	28	8	
	min	35	3.5	59	98	142	10	20	—	