



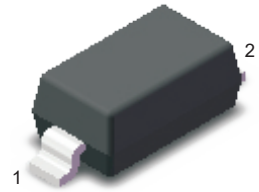
# BAV100W ~BAV103W

## Silicon Epitaxial Planar Switching Diode

### Features

- For surface mount applications
- Glass passivated chip junction
- Ideal for automated placement
- Fast reverse recovery time
- Lead free in comply with EU RoHS 2011/65/EU directive

SOD-123



1.Cathode  2.Anode

### Marking Code:

BAV100W: B100  
BAV101W: B101  
BAV102W: B102  
BAV103W: B103

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

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	BAV100W	60
		BAV101W	120
		BAV102W	200
		BAV103W	250
Maximum RMS Voltage	$V_{RMS}$	BAV100W	50
		BAV101W	100
		BAV102W	150
		BAV103W	200
Continuous Forward Current	$I_F$	250	mA
Repetitive Peak Forward Current	$I_{FRM}$	625	mA
Non-repetitive Peak Forward Surge Current	$I_{FSM}$	at $t = 1\text{ s}$	1
		at $t = 1\text{ ms}$	3
		at $t = 1\text{ }\mu\text{s}$	9
Power Dissipation	$P_D$	500	mW
Typical Thermal Resistance <sup>Note1</sup>	$R_{\theta JA}$	500	$^\circ\text{C/W}$
Junction Temperature	$T_J$	500	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^\circ\text{C}$

### Note:

1. P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.



# BAV100W ~BAV103W

## Silicon Epitaxial Planar Switching Diode

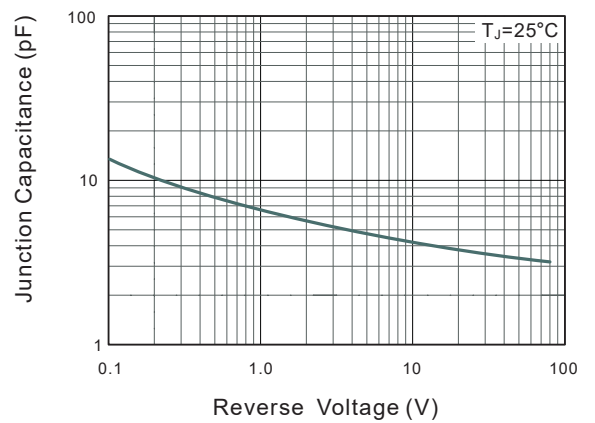
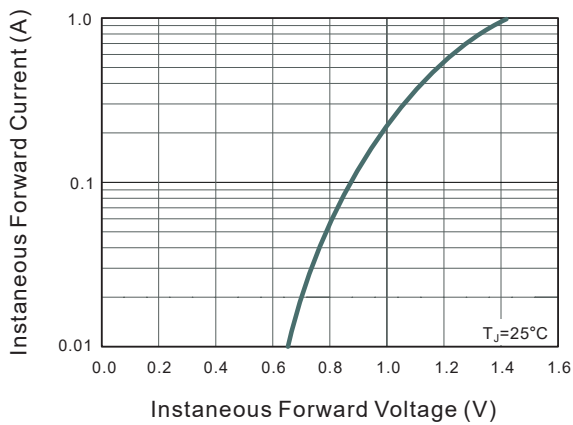
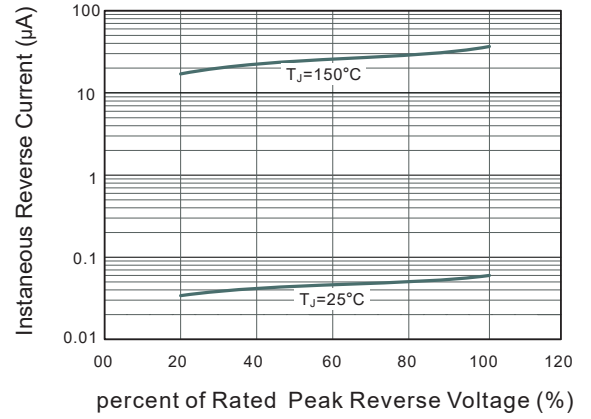
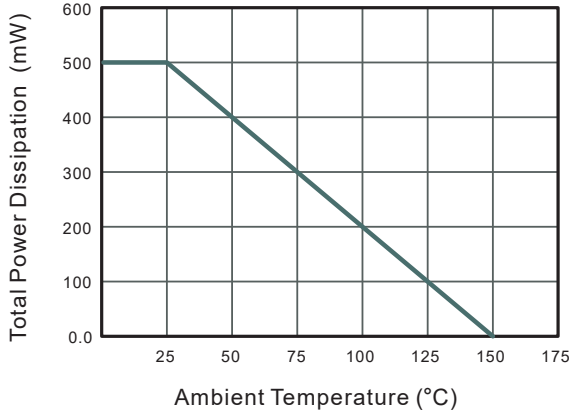
### Characteristics at $T_A = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$	BAV100W BAV101W BAV102W BAV103W $V_{(BR)R}$	60 120 200 250	-- -- -- --	V
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 $T_A = 100\text{ }^\circ\text{C}$	$I_R$	-- --	0.1 15	$\mu\text{A}$
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



# BAV100W ~BAV103W Silicon Epitaxial Planar Switching Diode

## Typical Characteristic Curves





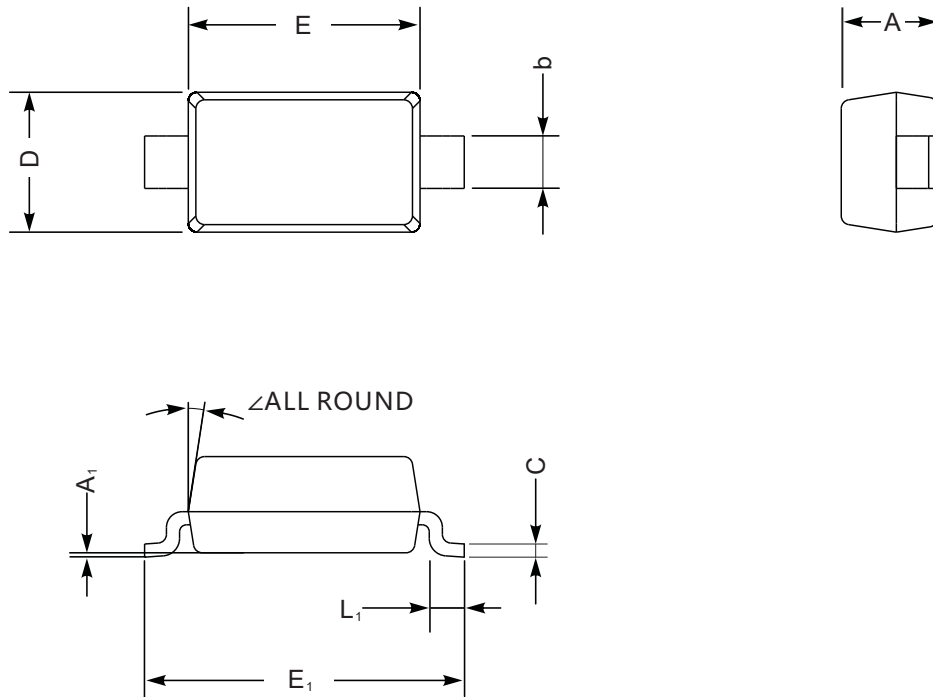
# BAV100W ~BAV103W

## Silicon Epitaxial Planar Switching Diode

### 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	—	