

# BAV116W

## Silicon Epitaxial Planar Low Leakage Diode

### Feature

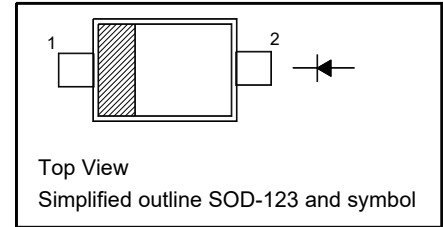
- Very low leakage current
- Medium speed switching times

### Applications

- For low leakage current

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



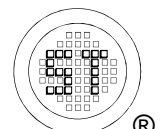
### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit	
Peak Repetitive Reverse Voltage	$V_{RRM}$	110	V	
Continuous Forward Current	$I_{FM}$	215	mA	
Repetitive Peak Forward Current	$I_{FRM}$	500	mA	
Non-Repetitive Peak Forward Surge Current	$I_{FSM}$	at $t = 1 \mu\text{s}$	4	A
		at $t = 1 \text{ms}$	1	
		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	$^\circ\text{C}$	

### Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance from Junction to Ambient <sup>1)</sup>	$R_{\theta JA}$	500	$^\circ\text{C}/\text{W}$

<sup>1)</sup> Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.

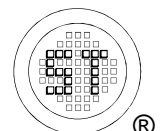


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## Characteristics ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100 \mu\text{A}$	$V_{(BR)R}$	110	-	V
Forward Voltage at $I_F = 1 \text{ mA}$ at $I_F = 10 \text{ mA}$ at $I_F = 50 \text{ mA}$ at $I_F = 150 \text{ mA}$	$V_F$	- - - -	0.9 1 1.1 1.25	V
Reverse Current at $V_R = 75 \text{ V}$ at $V_R = 75 \text{ V}, T_j = 125^\circ\text{C}$	$I_R$	- -	5 80	nA
Total Capacitance at $V_R = 0, f = 1 \text{ MHz}$	$C_T$	-	5	pF
Reverse Recovery Time at $I_F = I_R = 10 \text{ mA}, I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$	$t_{rr}$	-	3	$\mu\text{s}$



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## Electrical Characteristics Curves

Fig 1. Power Derating Curve

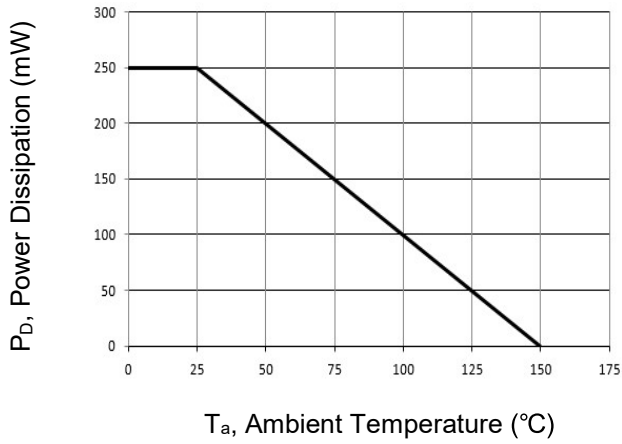


Fig 2. Capacitance Characteristics Curve

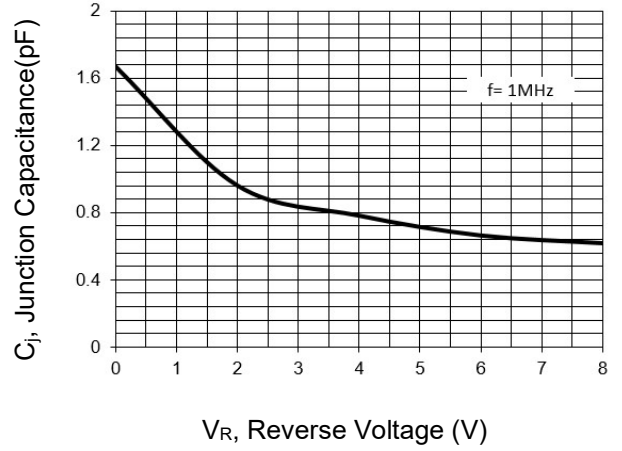


Fig 3. Reverse Characteristics Curve

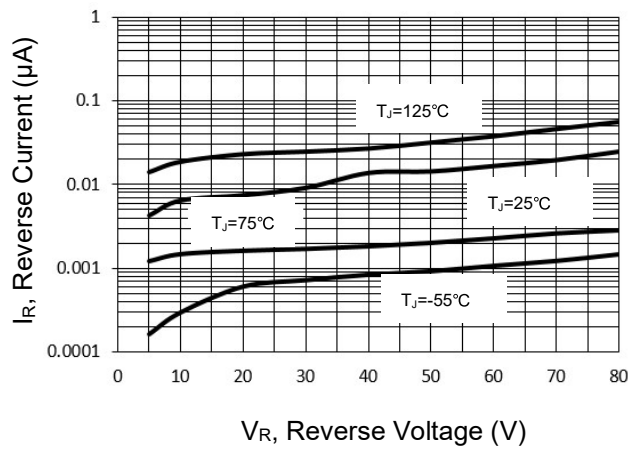
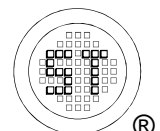
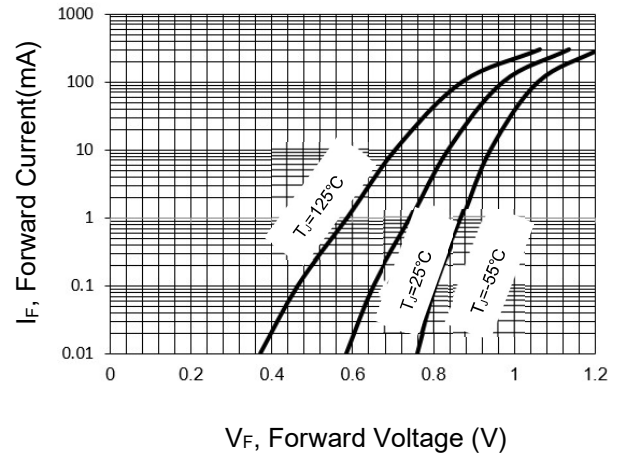


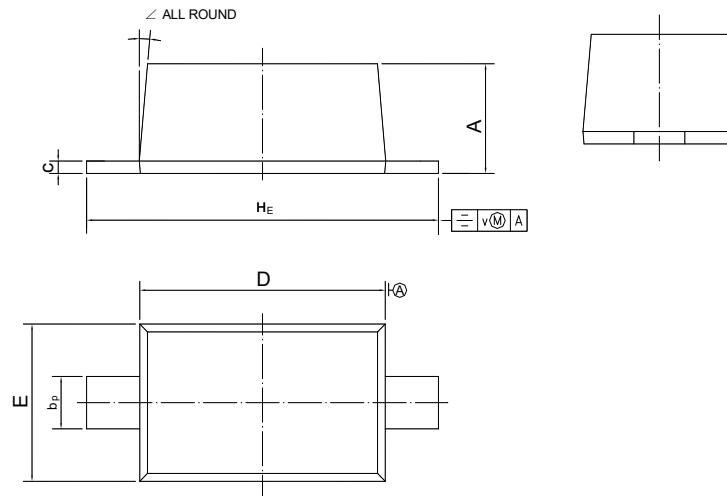
Fig 4. Forward Characteristics Curve



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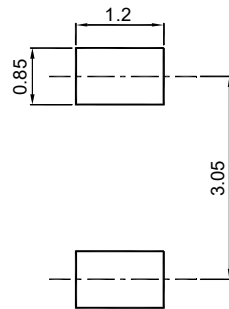
## PACKAGE OUTLINE Plastic surface mounted package

SOD-123



UNIT	A	bp	c	D	E	HE	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

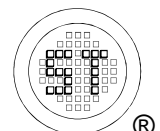
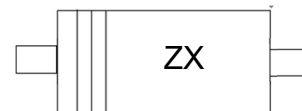
Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	(inch)	mm	(inch)	
SOD-123	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

### Marking information

" III " = Cathode line

" ZX " = Part No.

Font type: Arial



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