

BAV116W

Silicon Epitaxial Planar Low Leakage Diode

Feature

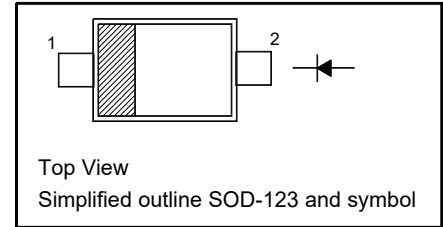
- Very low leakage current
- Medium speed switching times

Applications

- For low leakage current

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



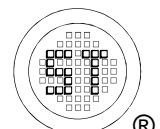
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

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
		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 ¹⁾	$R_{\theta JA}$	500	$^\circ\text{C}/\text{W}$

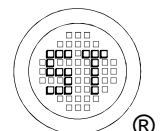
¹⁾ Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.



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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	μs



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Electrical Characteristics Curves

Fig 1. Power Derating Curve

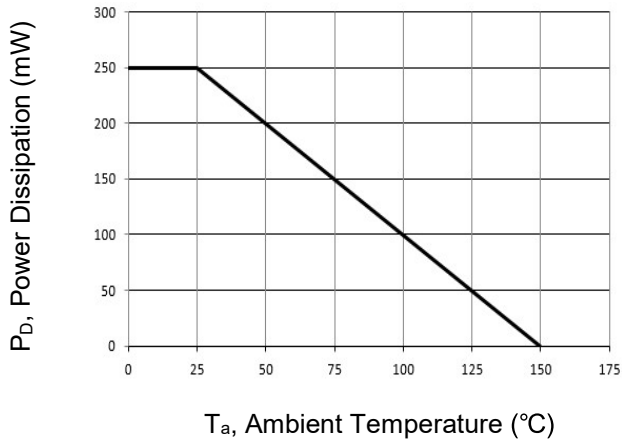


Fig 2. Capacitance Characteristics Curve

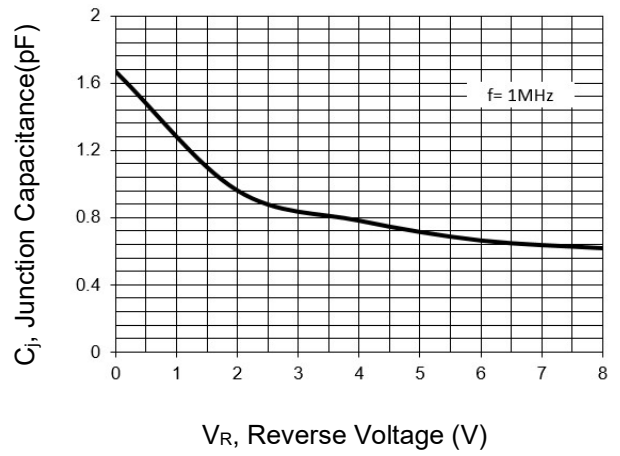


Fig 3. Reverse Characteristics Curve

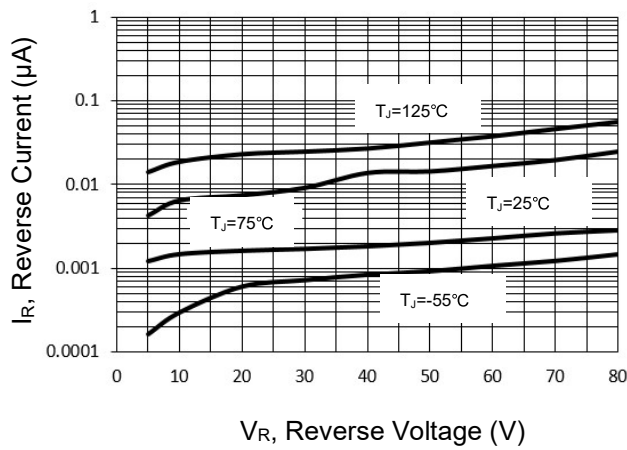
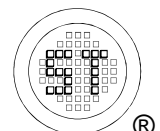
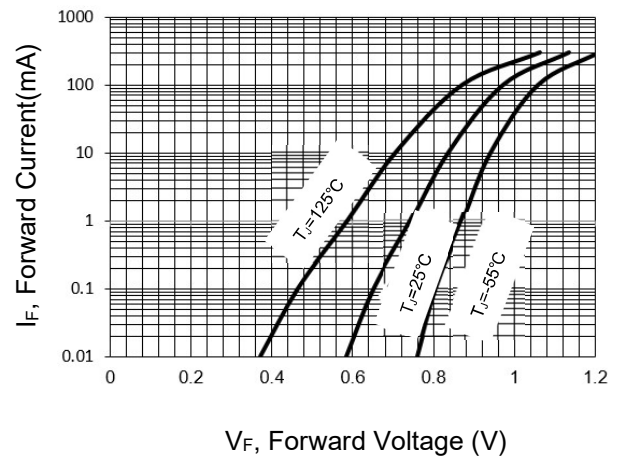


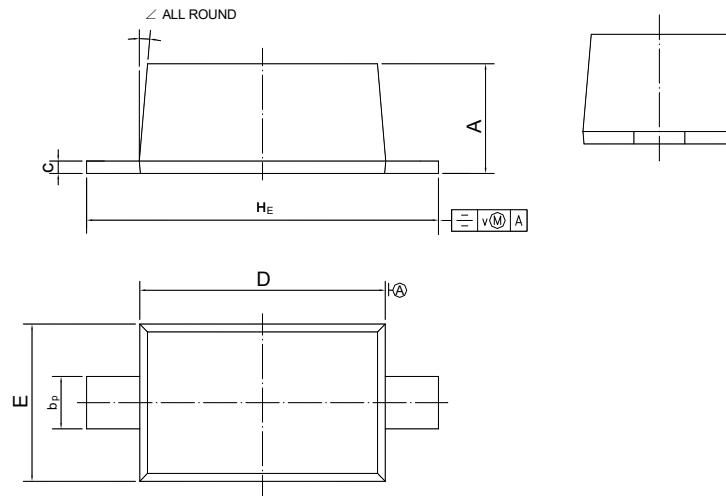
Fig 4. Forward Characteristics Curve



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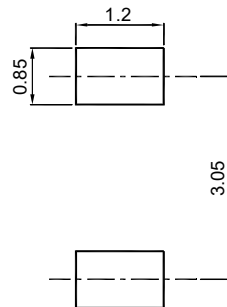
PACKAGE OUTLINE Plastic surface mounted package

SOD-123



UNIT	A	b _p	c	D	E	H _E	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

