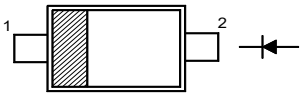
ABAV19W, ABAV20W, ABAV21W

Silicon Epitaxial Planar Diodes

High Voltage Switching Diode

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Simplified outline SOD-123 and symbol

Features

- AEC-Q101 Qualified
- Fast switching speed
- Surface mount package ideally suited for automatic insertion
- Halogen and Antimony Free(HAF), RoHS compliant

Absolute Maximum Ratings (T_a = 25℃)

Parameter		Symbol	Value	Unit
Repetitive Peak Reverse Voltage	ABAV19W ABAV20W ABAV21W	V_{RRM}	120 200 250	V
Reverse Voltage	ABAV19W ABAV20W ABAV21W	V_R	100 150 200	V
Average Rectified Forward Current		$I_{F(AV)}$	200	mA
Forward Continuous Current		I_{FM}	400	mA
Repetitive Peak Forward Current		I_{FRM}	625	mA
Non-repetitive Peak Forward Surge Current	at t = 1 ms at t = 1 s	I_{FSM}	2.5 0.5	A
Power Dissipation [1]		P_D	250	mW
Operating Junction Temperature Range		T_j	- 55 to + 150	℃
Storage Temperature Range		T_{stg}	- 55 to + 150	℃

Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance from Junction to Ambient [1]	$R_{\theta JA}$	500	℃/W

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

Dated: 02/07/2026 Rev: 02

Characteristics at T_a = 25°C

Parameter		Symbol	Min.	Max.	Unit
Forward Voltage at I_F = 100 mA at I_F = 200 mA		V_F	- -	1 1.25	V
Reverse Breakdown Voltage at I_R = 100 µA	ABAV19W ABAV20W ABAV21W	$V_{(BR)R}$	120 200 250	- - -	V
Reverse Current at V_R = 100 V at V_R = 150 V at V_R = 200 V	ABAV19W ABAV20W ABAV21W	I_R	- - -	100 100 100	nA
Total Capacitance at V_R = 0 V, f = 1 MHz		C_T	-	5	pF
Reverse Recovery Time at I_F = I_R = 30 mA, I_{rr} = 0.1 * I_R, R_L = 100 Ω		t_{rr}	-	50	ns

Electrical Characteristic Curve

Fig 1. Power Derating Curve

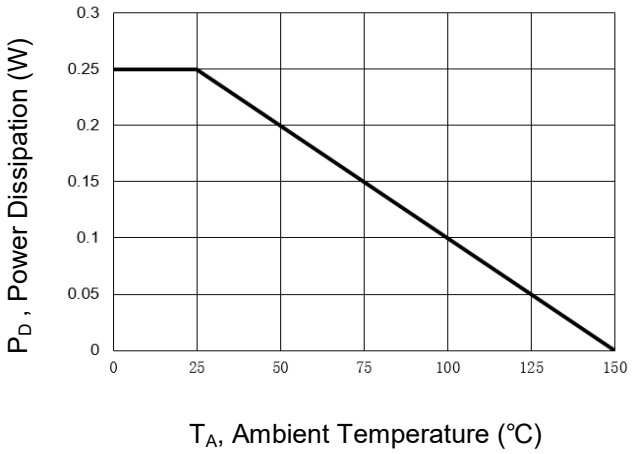


Fig 2. Forward Characteristic Curve

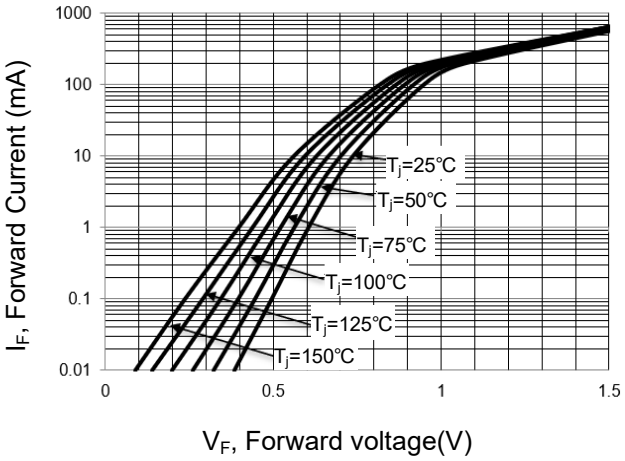


Fig 3. Reverse Characteristic Curve

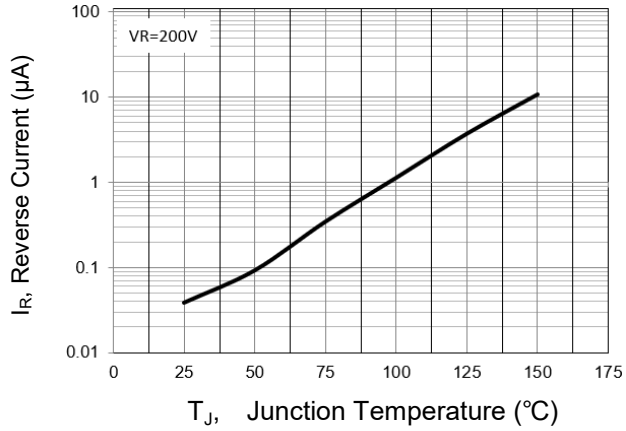
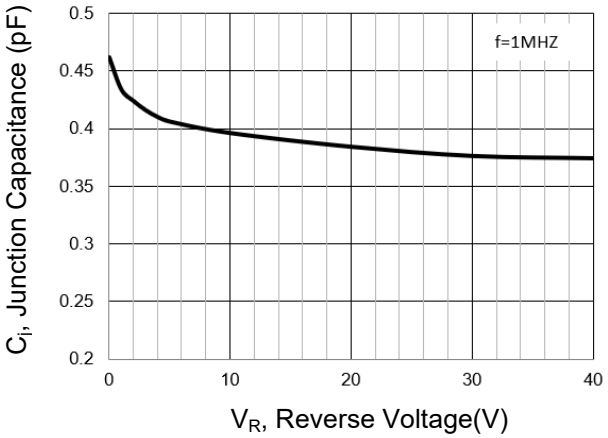


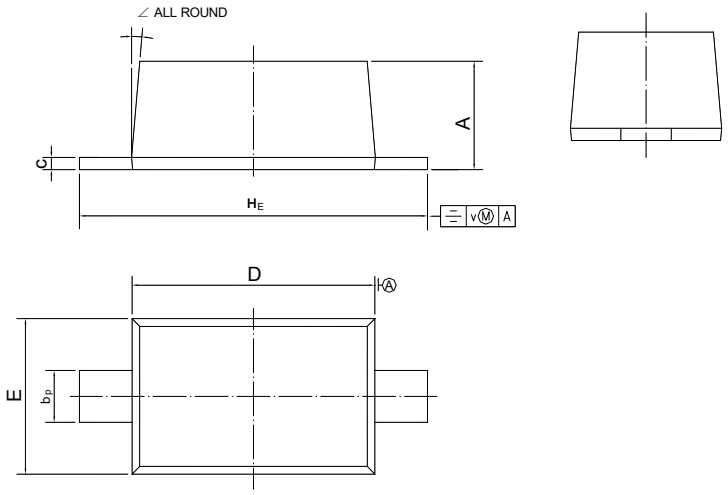
Fig 4. Junction Capacitance



ABAV19W, ABAV20W, ABAV21W

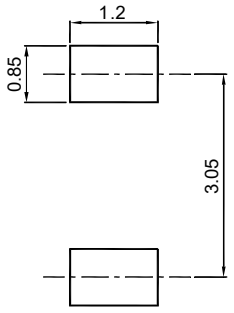
PACKAGE OUTLINE

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

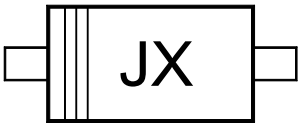


Packing information

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

" JX " = Part No.
" III " = Cathode line
Font type: Arial



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