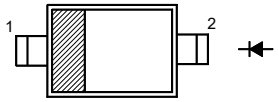
Silicon Epitaxial Planar Diodes

High Voltage Switching Diode

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Simplified outline SOD-123(Bend Lead) 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.

Characteristics at T_a = 25℃

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

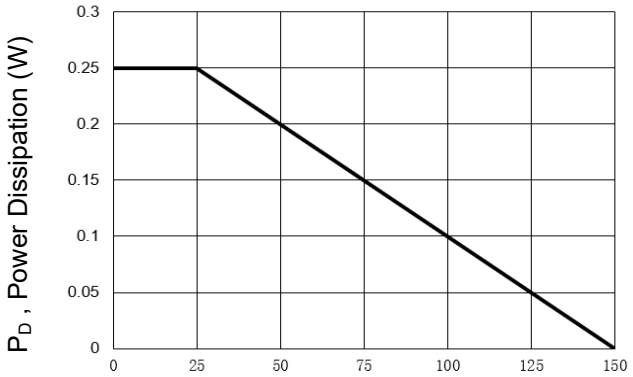


Fig 2. Forward Characteristic Curve

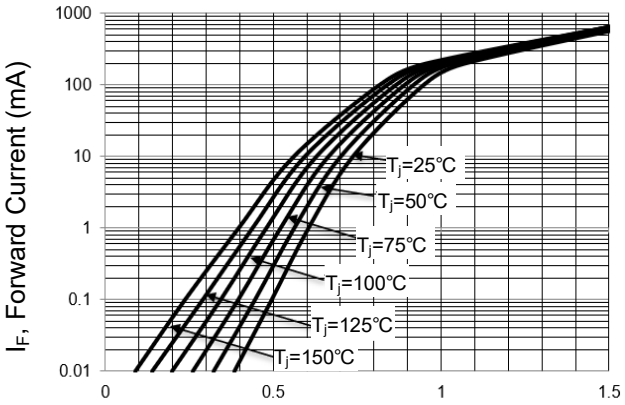


Fig 3. Reverse Characteristic Curve

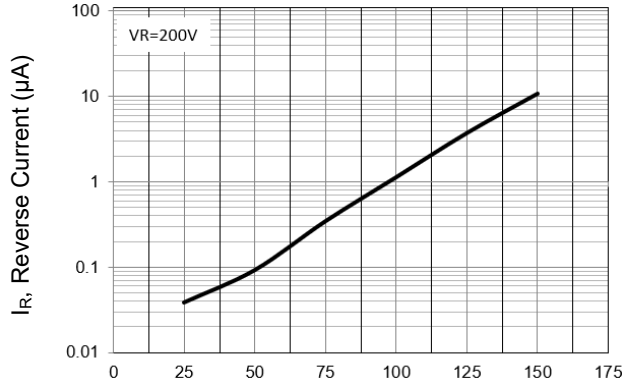
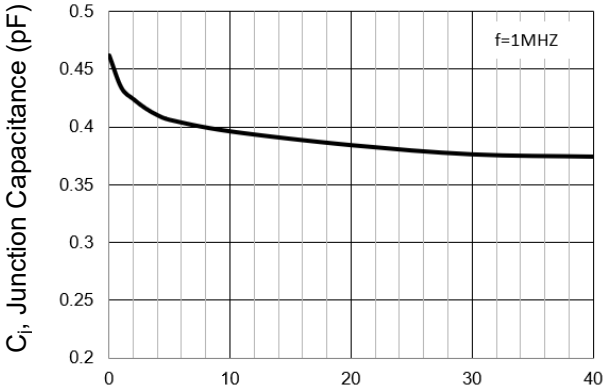
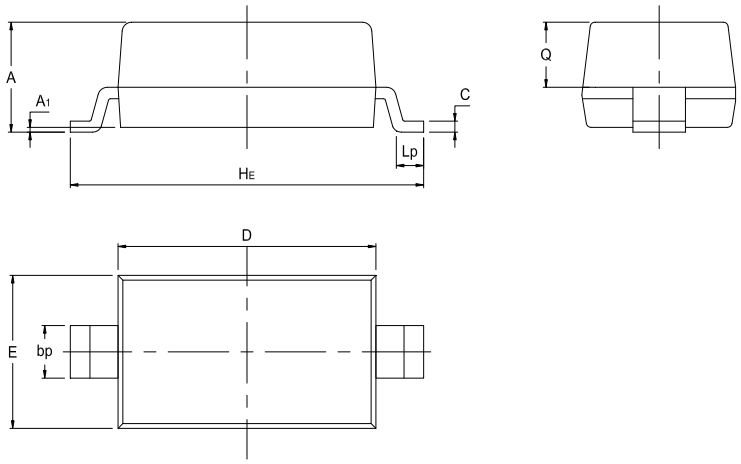


Fig 4. Junction Capacitance



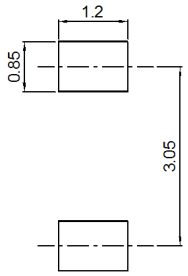
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-123(Bend Lead)**



UNIT	A	A_1	bp	C	D	E	H_E	Lp	Q
mm	1.21	0.1	0.7	0.14	2.7	1.7	3.8	0.4	0.65
	0.91	0	0.5	0.08	2.54	1.5	3.5	0.2	0.55

Recommended Soldering Footprint

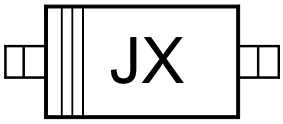


Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	(inch)	mm	(inch)	
SOD-123BL	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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