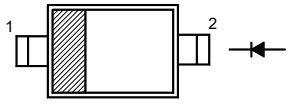
Silicon Epitaxial Planar Switching Diode

Features

- AEC-Q101 Qualified
- High-speed switching
- Halogen and Antimony Free(HAF), RoHS compliant

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Simplified outline SOD-323 (Bend Lead) and symbol

Absolute Maximum Ratings (T_a = 25 °C)

Parameter		Symbol	Value	Unit
Repetitive Peak Reverse Voltage		V_{RRM}	100	V
Reverse Voltage		V_R	100	V
Continuous Forward Current		I_F	250	mA
Repetitive Peak Forward Current		I_{FRM}	500	mA
Non-Repetitive Peak Forward Current	t = 1 μs t = 1 ms t = 1 s	I_{FSM}	4 1 0.5	A
Power Dissipation [1)]		P_D	200	mW
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_{stg}	- 55 to + 150	℃

Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance from Junction to Ambient [1)]	$R_{\theta JA}$	625	℃/W

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

Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I_R = 100 µA	$V_{(BR)R}$	100	-	V
Forward Voltage at I_F = 1 mA at I_F = 10 mA at I_F = 50 mA at I_F = 150 mA	V_F	 - - - -	 0.715 0.855 1 1.25	V
Reverse Current at V_R = 25 V at V_R = 75 V at V_R = 25 V, T_J = 150 °C at V_R = 75 V, T_J = 150 °C	I_R	 - - - -	 30 1 30 50	 nA µA µA µA
Diode Capacitance at V_R = 0 V, f = 1 MHz	C_{tot}	-	1.5	pF
Reverse Recovery Time at I_F = 10 mA, V_R = 6 V, R_L = 100 Ω, I_{rr} = 0.1 X I_R	t_{rr}	-	4	ns

Electrical Characteristics Curves

Fig 1. Power Derating Curve

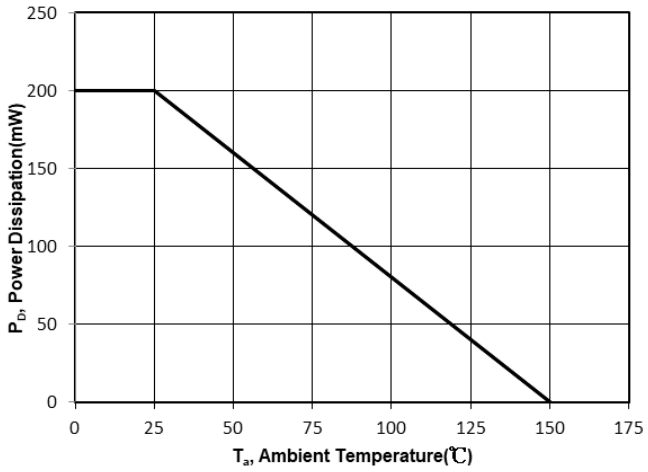


Fig 2. Capacitance Characteristics

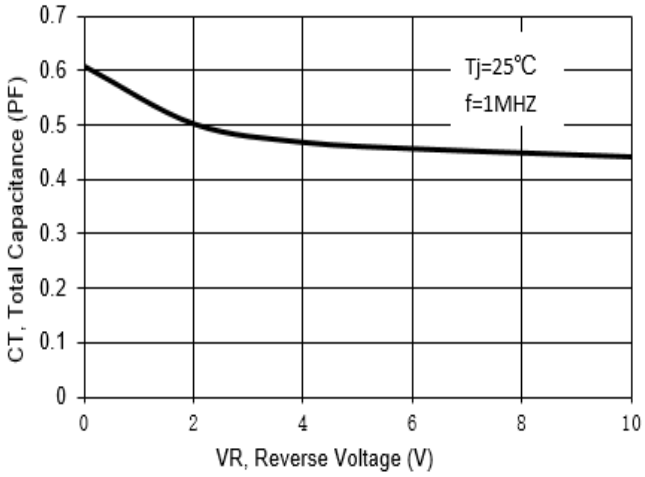


Fig 3. Reverse Characteristics

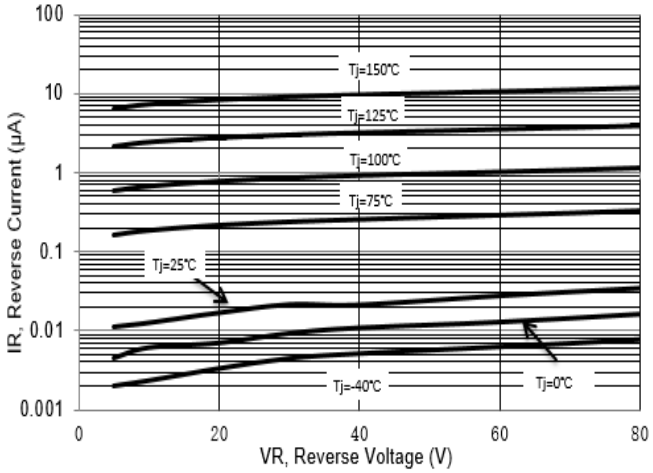
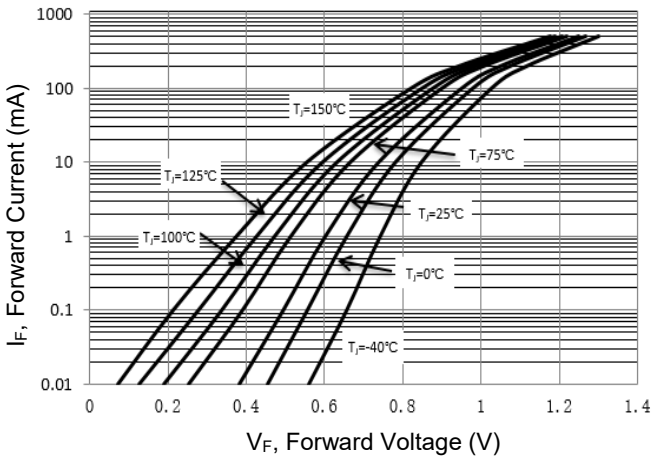
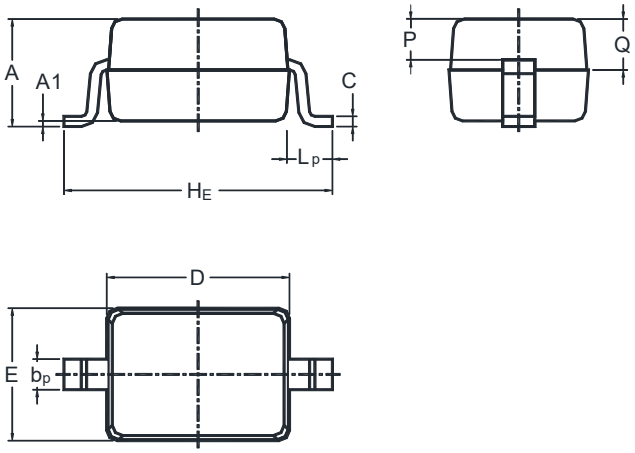


Fig 4. Forward Characteristics



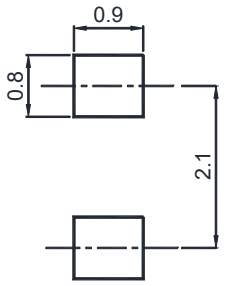
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-323(Bend Lead)**



UNIT	A	A_1	b_p	C	D	E	H_E	L_p	Q	P
mm	1.1 0.8	0.1 0	0.4 0.25	0.18 0.09	1.8 1.6	1.35 1.15	2.8 2.3	0.5 0.1	0.5 0.3	0.4 0.3

Recommended Soldering Footprint

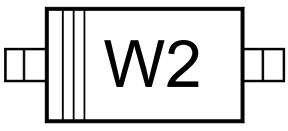


Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-323BL	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

Marking information

" W2 " = Part No.
" III " = Cathode line
Font type: Arial



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