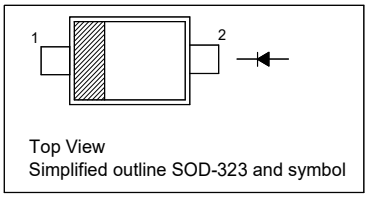
Silicon Epitaxial Planar Switching Diode

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Simplified outline SOD-323 and symbol

Features

- AEC-Q101 Qualified
- High reliability
- Small plastic package suitable for surface mounted design
- Halogen and Antimony Free(HAF), RoHS compliant

Applications

- High speed switching

Absolute Maximum Ratings (T_a = 25℃)

Parameter		Symbol	Value	Unit
Repetitive Reverse Voltage		V_{RRM}	100	V
Average Rectified Forward Current		$I_{F(AV)}$	200	mA
Non-repetitive Peak Forward Surge Current	at t = 1 s at t = 1 μs	I_{FSM}	1 2	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℃

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I_R = 5 μA at I_R = 100 μA	$V_{(BR)R}$	 75 100	 - -	 V V
Forward Voltage at I_F = 10 mA	V_F	-	1	V
Reverse Current at V_R = 20 V at V_R = 75 V at V_R = 20 V, T_j = 150 °C	I_R	 - - -	 25 5 50	 nA μA μA
Total Capacitance at V_R = 0 V, f = 1 MHz	C_{tot}	-	4	pF
Reverse Recovery Time at I_F = 10 mA, I_{rr} = 0.1 × I_R, V_R = 6 V, R_L = 100 Ω	t_{rr}	-	4	ns

Electrical Characteristics Curves

Fig 1. Power Derating Curve

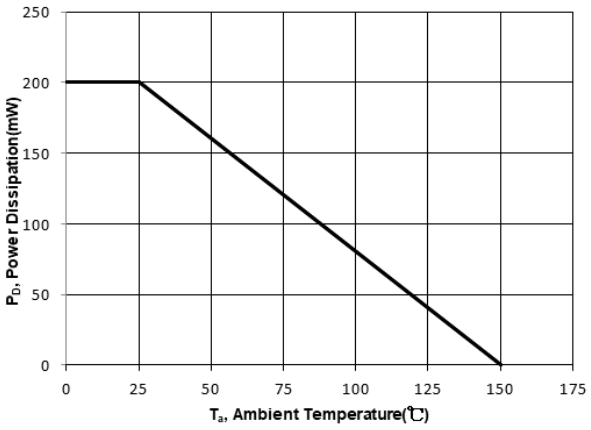


Fig 2. Capacitance characteristics

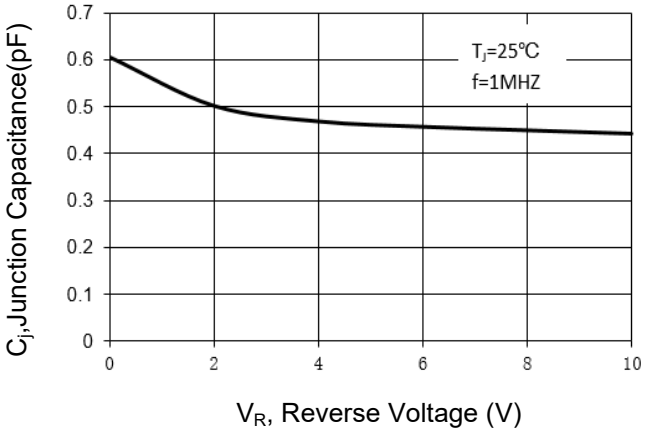


Fig 3. Reverse Characteristics

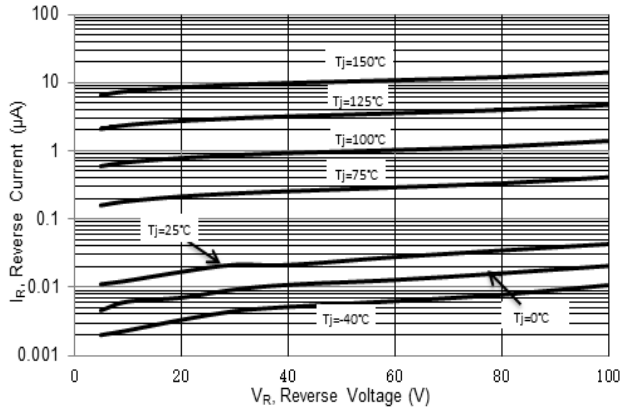
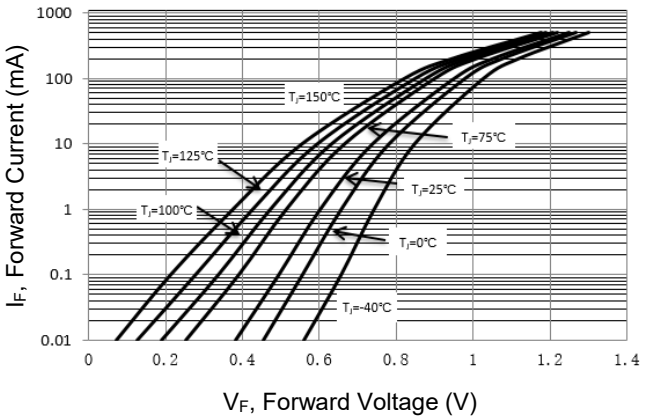
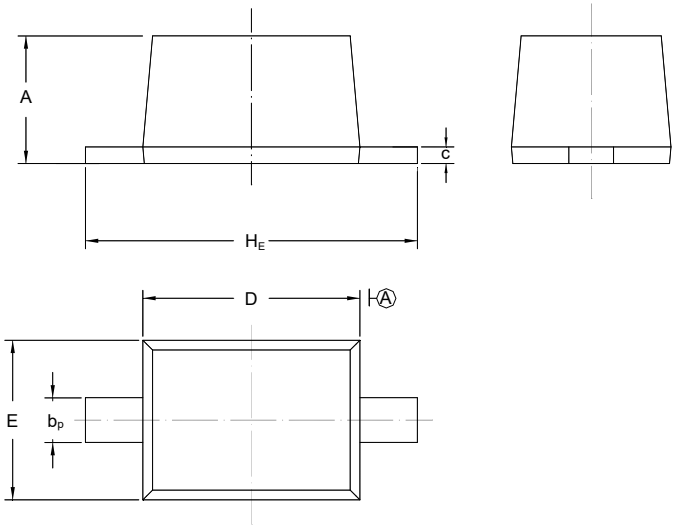


Fig 4. Forward Characteristics



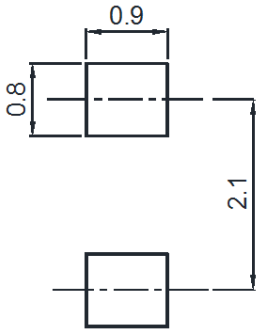
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-323**



UNIT	A	b_p	C	D	E	H_E
mm	1.10 0.80	0.40 0.25	0.15 0.10	1.80 1.60	1.35 1.15	2.80 2.30

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-323	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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