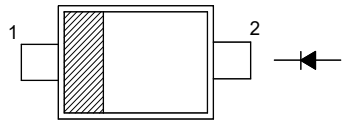
Silicon Epitaxial Planar Switching Diode

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Simplified outline SOD-323 and symbol

Features

- AEC-Q101 Qualified
- Fast switching speed
- Ultra-small surface mount package
- For general purpose switching applications
- Halogen and Antimony Free(HAF), RoHS compliant

Absolute Maximum Ratings (T_a = 25℃)

Parameter		Symbol	Value	Unit
Reverse Voltage		V_R	100	V
Peak Reverse Voltage		V_{RM}	100	V
Forward Current (Continuous)		I_F	300	mA
Non-repetitive Peak Forward Surge Current	at t = 1 s at t = 1 ms at t = 1 μs	I_{FSM}	0.5 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 = 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 Leakage Current at V_R = 20 V at V_R = 100 V at V_R = 25 V, T_j = 150 °C at V_R = 75 V, T_j = 150 °C	I_R	 - - - -	 25 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 × I_R	t_{rr}	-	4	ns

Electrical Characteristics Curves

Fig 1. Power Dissipation vs. Temperature

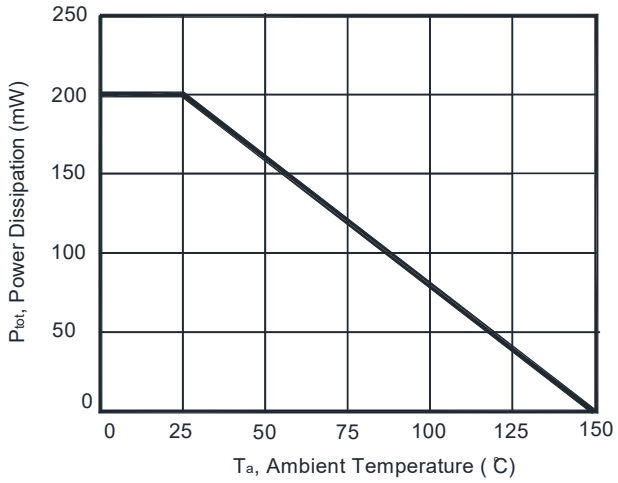


Fig 2. Total Capacitance vs. Reverse Voltage

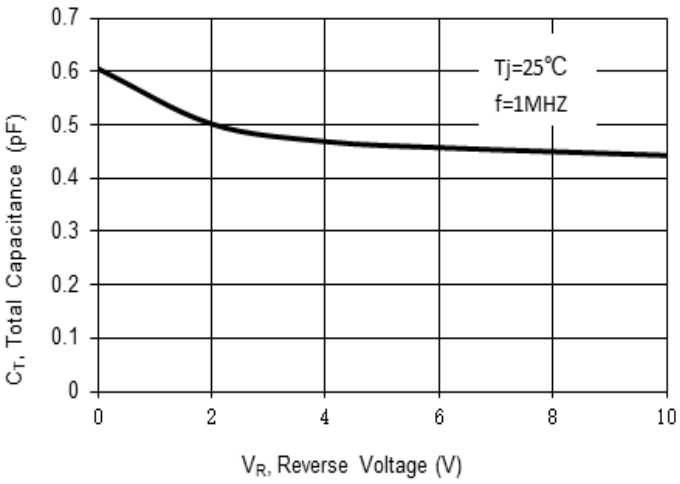


Fig 3. Reverse Current vs. Reverse Voltage

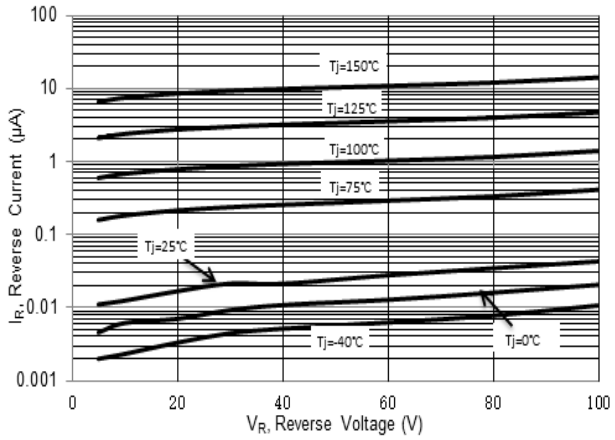
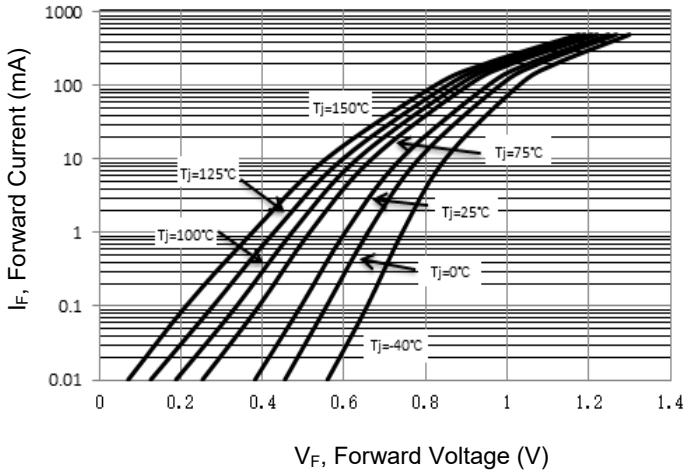
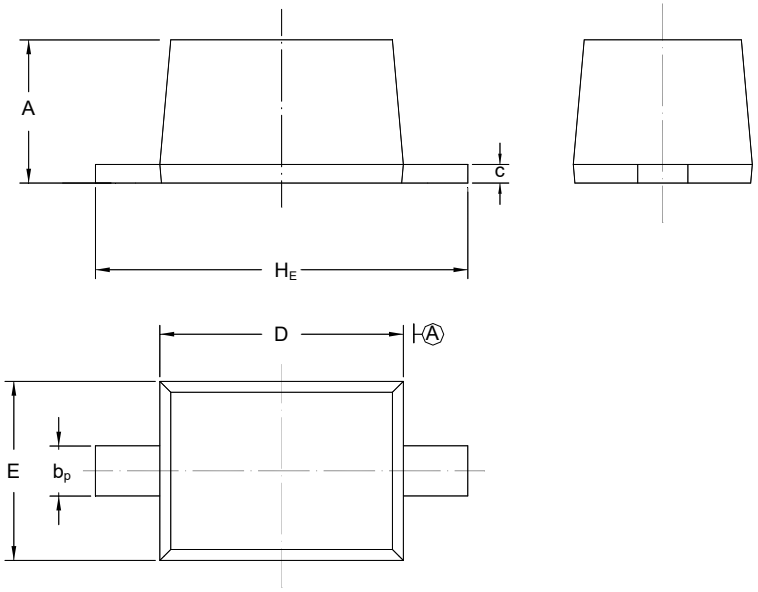


Fig 4. Forward Characteristics



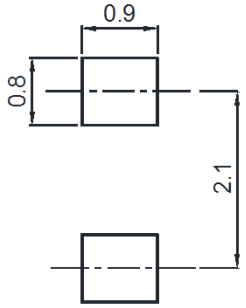
PACKAGE OUTLINE

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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