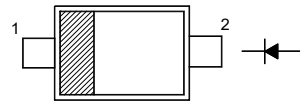
Silicon Epitaxial Planar Switching Diode

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Simplified outline SOD-123 and symbol

Features

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

Absolute Maximum Ratings (T_a = 25℃)

Parameter		Symbol	Value	Unit
Repetitive Reverse Voltage		V_{RRM}	100	V
Average Rectified Forward Current		$I_{F(AV)}$	215	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	400	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]	$R_{\theta JA}$	313	℃/W

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

Electrical Characteristics (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
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℃	I_R	 - - -	 25 5 50	 nA μA μA
Capacitance at V_R = 0 V, f = 1 MHz	C_{tot}	-	4	pF
Reverse Recovery Time at I_F = 10 mA, V_R = 6 V, I_{rr} = 0.1 X I_R , R_L = 100 Ω	t_{rr}	-	4	ns

Electrical Characteristics Curves

Fig 1. Power Derating Curve

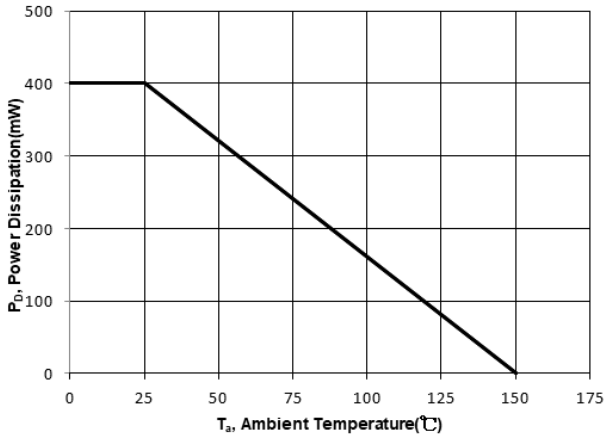


Fig 2. Capacitance Characteristics

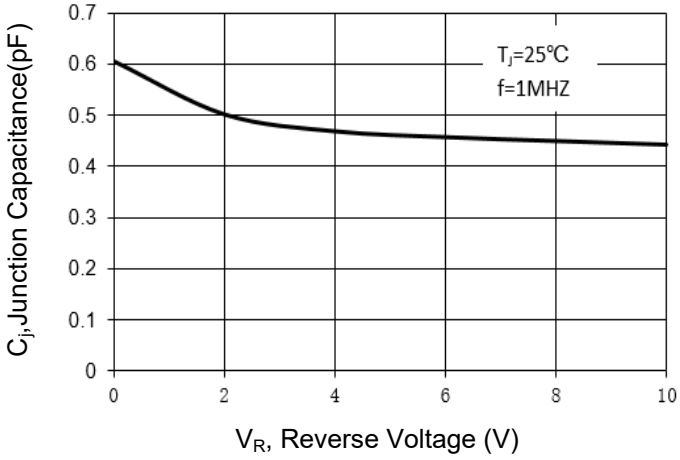


Fig 3. Reverse Characteristics

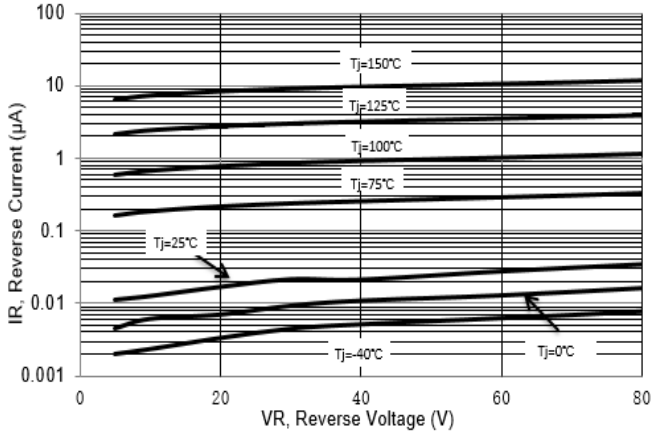
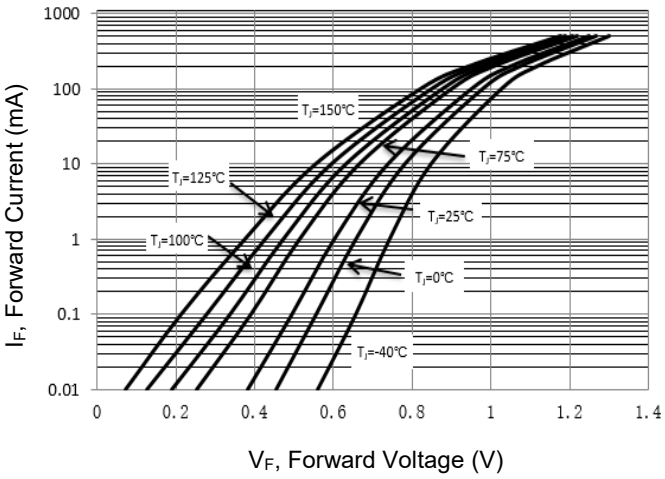
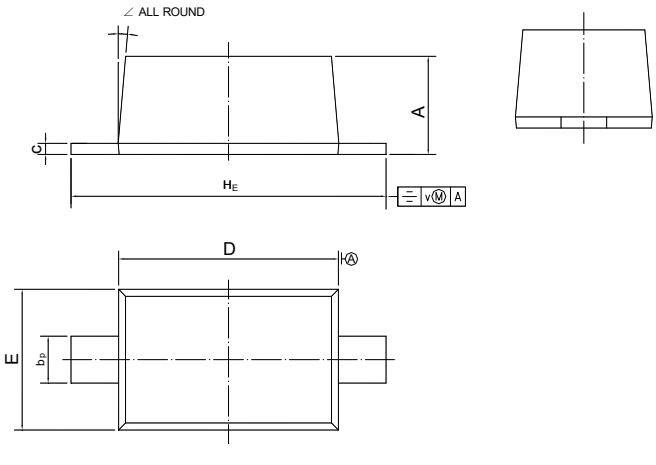


Fig 4. Forward Characteristics



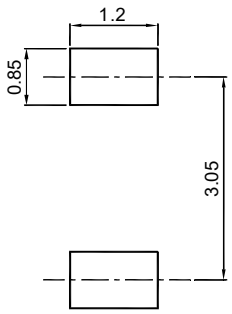
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads SOD-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

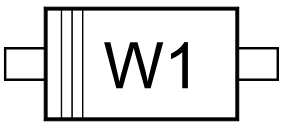


Packing information

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

" W1 " = Part No.
" III " = Cathode line
Font type: Arial



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