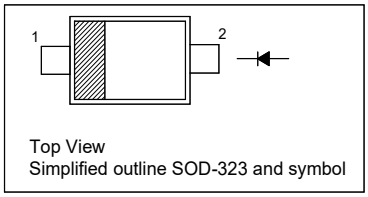
Silicon Epitaxial Planar Diodes

High Voltage Switching Diode

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Simplified outline SOD-323 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 °C)

Parameter		Symbol	Value	Unit
Repetitive Peak Reverse Voltage	ABAV19XWS ABAV20XWS ABAV21XWS	V_{RRM}	120 200 250	V
Reverse Voltage	ABAV19XWS ABAV20XWS ABAV21XWS	V_R	100 150 200	V
Average Rectified Forward Current		$I_{F(AV)}$	250	mA
Forward Continuous Current		I_{FM}	400	mA
Repetitive Peak Forward Current	tp ≤ 0.5 ms	I_{FRM}	1	A
Non-Repetitive Peak Forward Surge Current	at t = 100 µs at t = 1 ms at t = 10 ms at t = 1 s	I_{FSM}	3 2.3 1.7 0.5	A
Power Dissipation [1]		P_D	200	mW
Operating Junction Temperature Range		T_j	- 40 to + 150	℃
Storage Temperature Range		T_{stg}	- 40 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	ABAV19XWS ABAV20XWS ABAV21XWS	$V_{(BR)R}$	120 200 250	- - -	V
Reverse Current at V_R = 100 V at V_R = 150 V at V_R = 200 V	 ABAV19XWS ABAV20XWS ABAV21XWS	I_R	 - - -	 100 100 100	nA
Forward Voltage at I_F = 100 mA at I_F = 200 mA		V_F	 - -	 1 1.25	V
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 X I_R, R_L = 100 Ω		t_{rr}	-	50	ns

Electrical Characteristic Curve

Fig. 1 Power Derating Curve

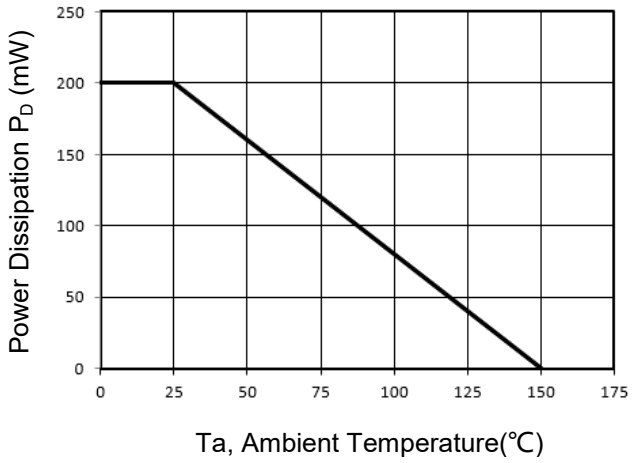


Fig. 2 Forward Characteristic Curve

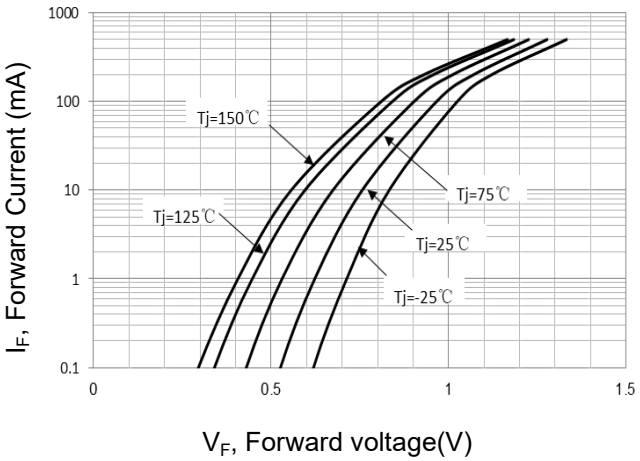


Fig. 3 Reverse Characteristic Curve

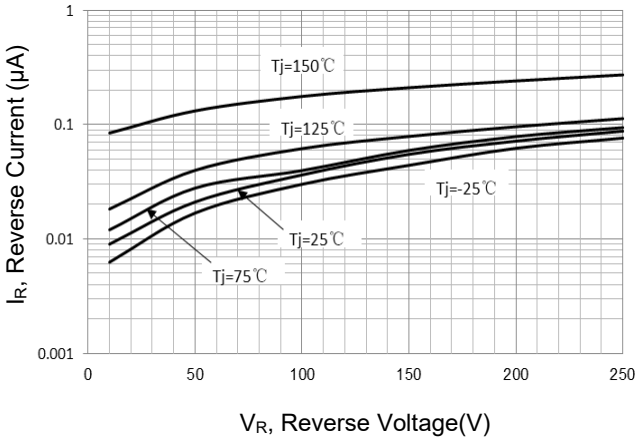
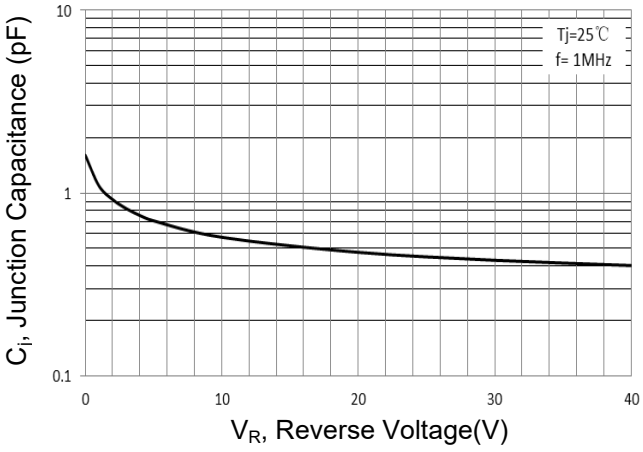
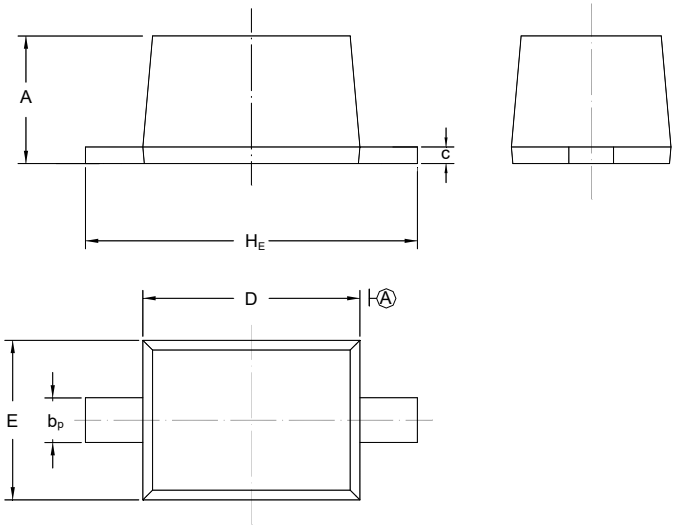


Fig. 4 Junction Capacitance



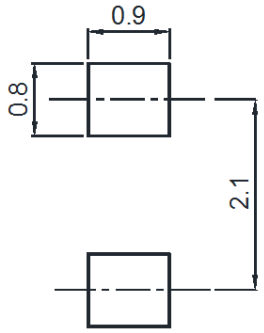
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads SOD-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

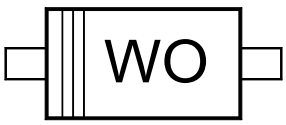
Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-323	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

Marking information

" WO " = Part No.

" III " = Cathode line

Font type: Arial



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