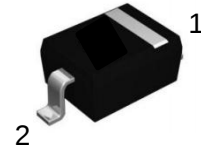


0.25A,100V Silicon Epitaxial Planar Switching Diode

Features

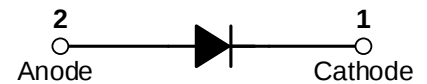
- AEC-Q101 Qualified
- Halogen and Antimony Free(HAF), RoHS compliant



SOD-323

Applications

- High-speed switching



Absolute Maximum Ratings ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Parameters	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	$t = 1 \mu\text{s}$	4	A
	$t = 1 \text{ ms}$	1	
	$t = 1 \text{ s}$	0.5	
Power Dissipation	P_D	200	mW
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Storage Temperature Range	T_J, T_{STG}	-65 ~ +150	$^{\circ}\text{C}$

Thermal Characteristics

Parameter	Symbol	Typ	Unit
Typical Thermal Resistance from Junction to Ambient (<i>Note 1</i>)	$R_{\theta JA}$	625	$^{\circ}\text{C/W}$

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

Electrical Characteristics ($T_a = 25^\circ\text{C}$ unless otherwise noted)					
Parameter	Symbol	Test Conditions	Min.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 100\mu\text{A}$	250	-	V
Forward Voltage	V_F	$I_F = 1\text{mA}$	-	0.715	V
		$I_F = 10\text{mA}$	-	0.855	
		$I_F = 50\text{mA}$	-	1	
		$I_F = 150\text{mA}$	-	1.25	
Reverse Current	I_R	$V_R = 25\text{V}$	-	30	nA
		$V_R = 75\text{V}$	-	1	μA
		$V_R = 25\text{V}, T_J = 150^\circ\text{C}$	-	30	
		$V_R = 75\text{V}, T_J = 150^\circ\text{C}$	-	50	
Diode Capacitance	C_{tot}	$V_R = 0\text{V}, f = 1\text{MHz}$	-	5	pF
Reverse Recovery Time	t_{rr}	$I_F = 10\text{mA}, V_R = 6\text{V}, I_{rr} = 0.1I_R, R_L = 100\Omega$	-	50	ns

Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)

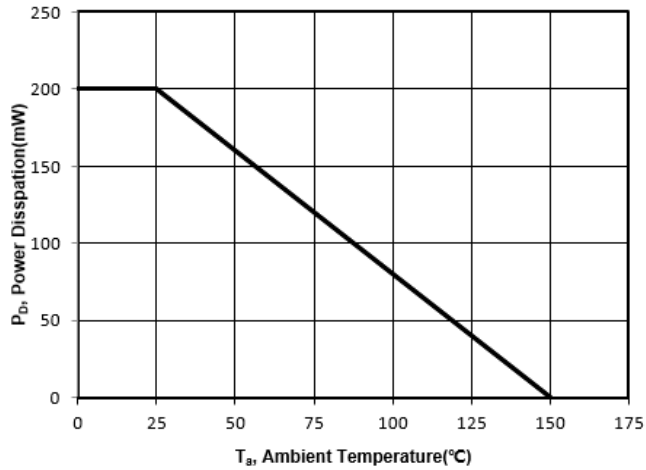


Fig 1. Power Derating Curve

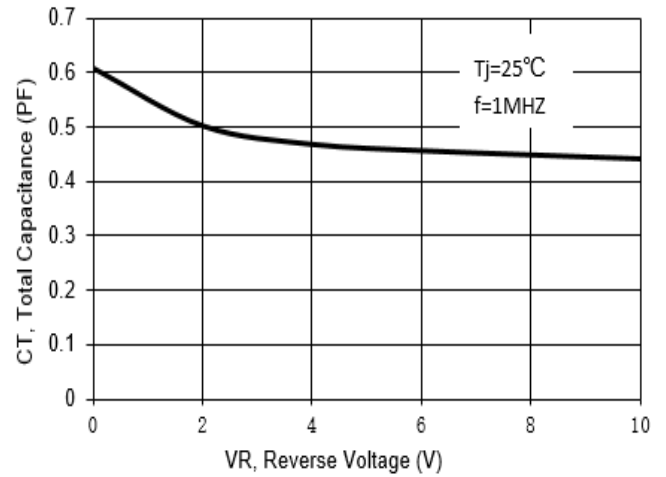


Fig 2. Capacitance Characteristics

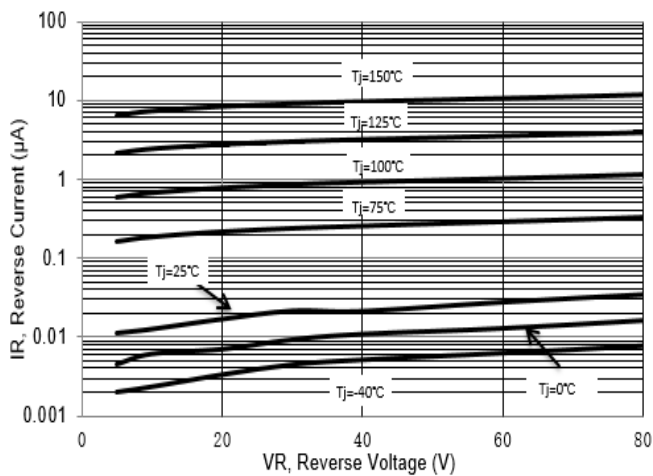


Fig 3. Reverse Characteristics

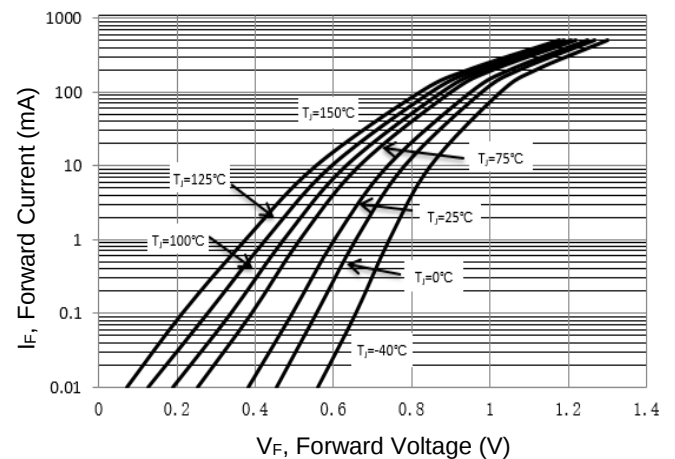
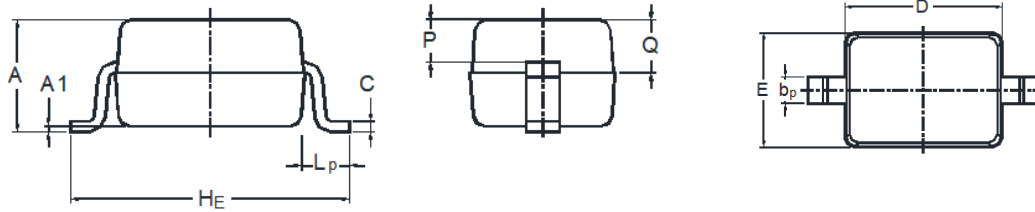


Fig 4. Forward Characteristics

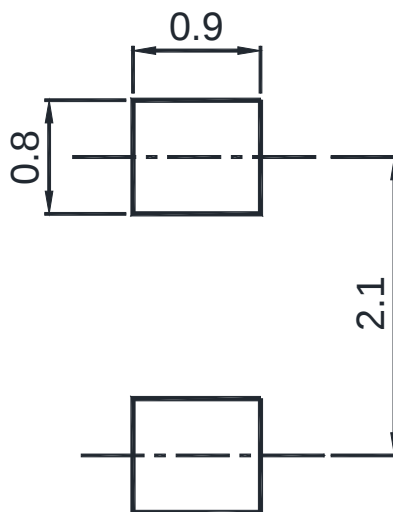
Package Outline Dimensions (Unit: millimeters)

SOD-323



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

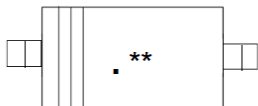
Recommended Soldering Footprint (Unit: millimeters)



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



1. " ** " = Part No
2. " III " = Cathode line
3. " • " = HAF (Halogen and Antimony Free)

Font type: Arial

Type	Marking
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Revision History

Version	Date	Description of changes
Rev.A	2025.10.16	Primary

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