

RB551V-30-HAF

Silicon Epitaxial Planar Schottky Barrier Diode

Features

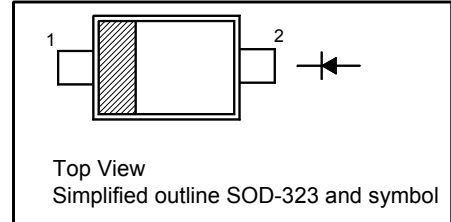
- Small surface mounting type
- Ultra low forward voltage
- High reliability
- Halogen and Antimony Free(HAF), RoHS compliant

Applications

- High frequency rectification switching regulation

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	30	V
DC Reverse Voltage	V_R	20	V
Average Rectified Forward Current	$I_{F(AV)}$	0.5	A
Peak Forward Surge Current (8.3 ms)	I_{FSM}	2	A
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 40 to + 125	$^\circ\text{C}$

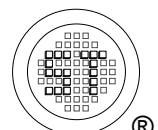
Thermal Characteristics

Parameter	Symbol	Value	Unit
Typical Thermal Resistance from Junction to Ambient ¹⁾	$R_{\theta JA}$	400	$^\circ\text{C/W}$

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

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 100\text{ mA}$ at $I_F = 500\text{ mA}$	V_F	0.36 0.47	V
Reverse Current at $V_R = 20\text{ V}$	I_R	100	μA



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Electrical Characteristic Curves

Fig 1. Forward Current Derating Curve

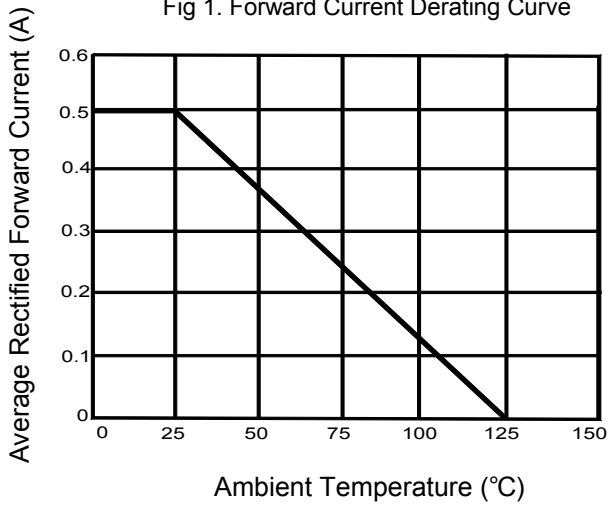


Fig 2. Forward Characteristic Curve

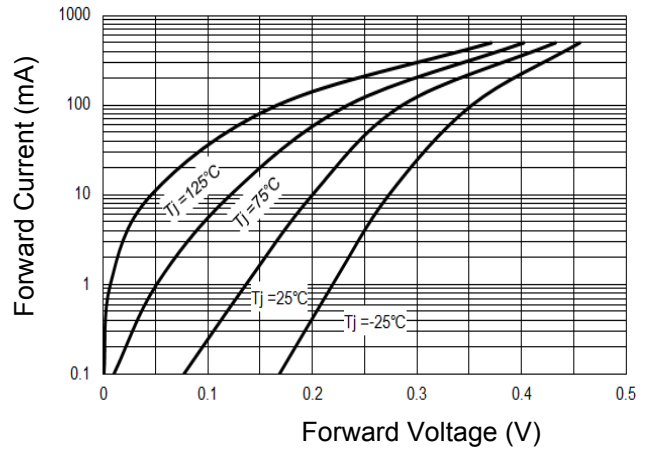


Fig 3. Reverse Characteristic Curve

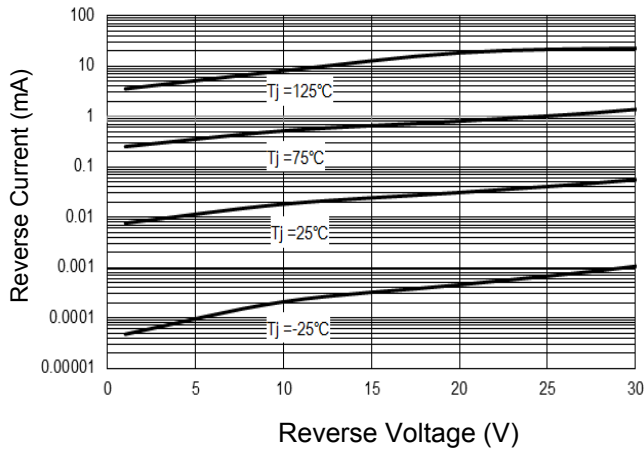
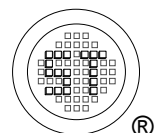
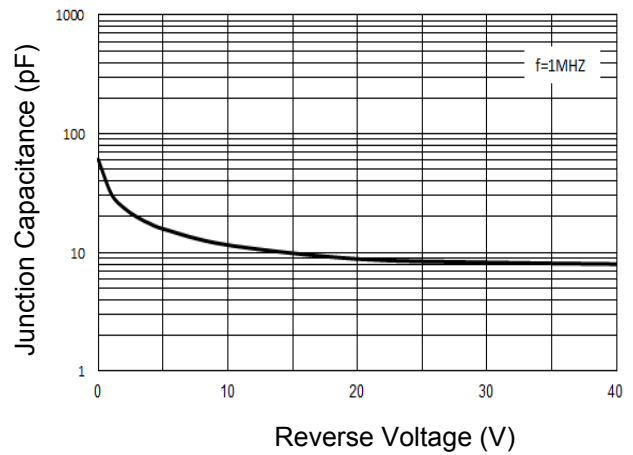


Fig 4. Junction Capacitance

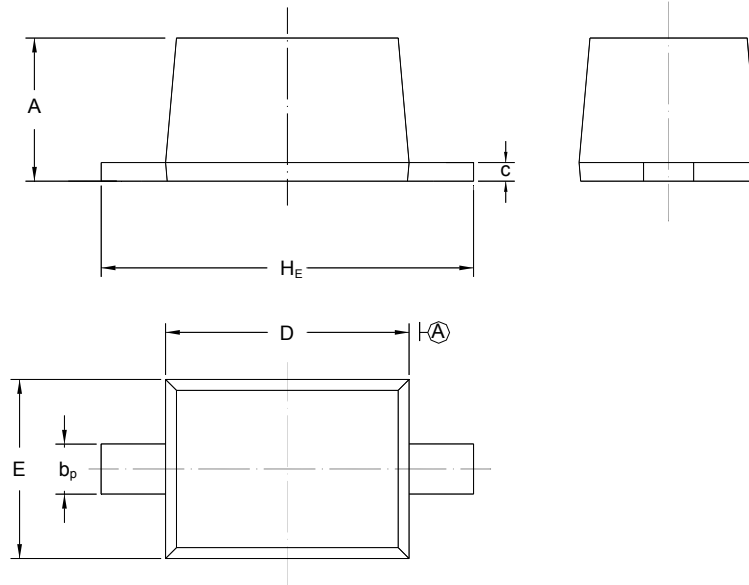


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PACKAGE OUTLINE

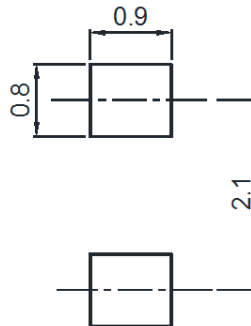
Plastic surface mounted package; 2 leads

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

- " SA " = Part No.
 - " III " = Cathode line
 - " • " = HAF (Halogen and Antimony Free)
- Font type: Arial

