

RB551V-30-AU

SURFACE MOUNT SCHOTTKY DIODES

Voltage

30 V

Current

0.5 A

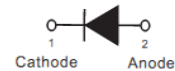
Features

- Low forward voltage drop
- Deal for automated placement
- Low power loss, high efficiency
- High surge current capability
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard
- AEC-Q101 qualified

Mechanical Data

- Case: SOD-323 Package
- Polarity: Color Band denotes cathode end
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.00001 ounces, 0.004 grams

SOD-323



Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	30	V
Maximum RMS Voltage	V _{RMS}	21	V
Maximum DC Blocking Voltage	V _{DC}	30	V
Maximum Average Forward Rectified Current	I _{F(AV)}	0.5	A
Peak Forward Surge Current: 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	5	A
Typical Junction Capacitance Measured at 1 MHz And Applied V _R = 4 V	C _J	25	pF
Typical Thermal Resistance	R _{θJA} ⁽¹⁾	650	°C/W
Operating Junction Temperature Range	T _J	-55~125	°C
Storage Temperature Range	T _{STG}	-55~150	°C

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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Instantaneous forward voltage	V_F	$I_F = 0.1 \text{ A}, T_J = 25^\circ\text{C}$	-	-	0.36	V
		$I_F = 0.5 \text{ A}, T_J = 25^\circ\text{C}$	-	-	0.49	
		$I_F = 0.1 \text{ A}, T_J = 100^\circ\text{C}$	-	0.23	-	
		$I_F = 0.5 \text{ A}, T_J = 100^\circ\text{C}$	-	0.41	-	
Reverse current	$I_R^{(2)}$	$V_R = 24 \text{ V}, T_J = 25^\circ\text{C}$	-	16.6	-	uA
		$V_R = 30 \text{ V}, T_J = 25^\circ\text{C}$	-	-	100	
		$V_R = 30 \text{ V}, T_J = 125^\circ\text{C}$	-	2.1	-	mA

NOTES:

1. Mounted on a FR4 PCB, single-sided copper, mini pad
2. Short duration pulse test used to minimize self-heating effect

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TYPICAL CHARACTERISTIC CURVES

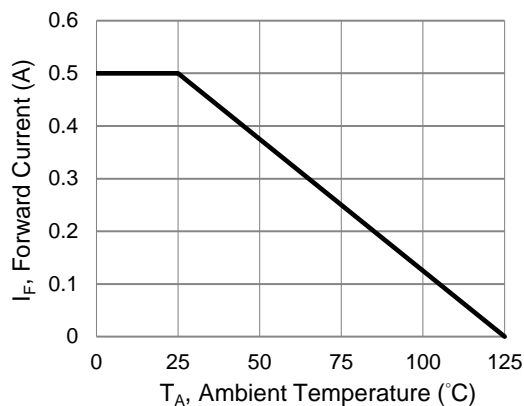


Fig.1 Forward Current Derating Curve

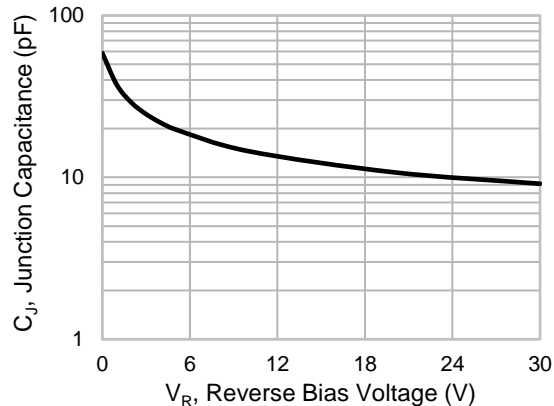


Fig.2 Typical Junction Capacitance

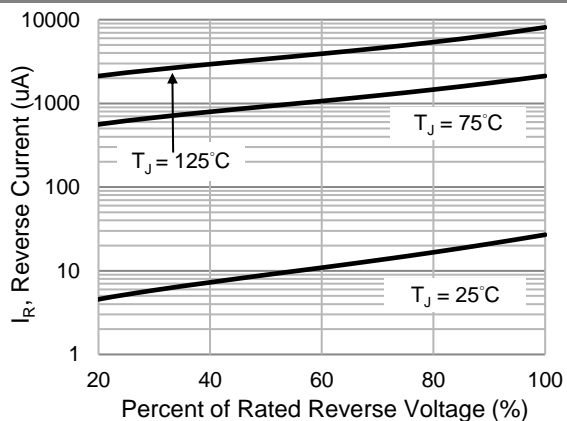


Fig.3 Typical Reverse Characteristics

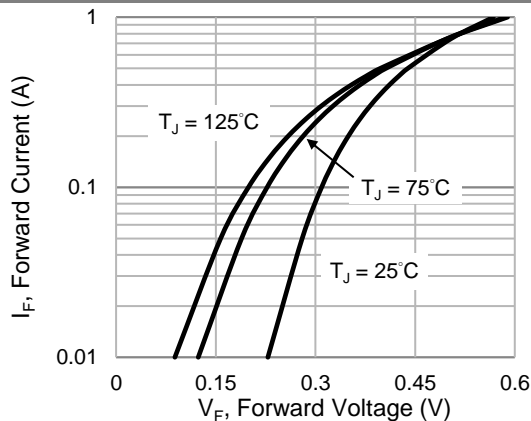


Fig.4 Typical Forward Characteristics

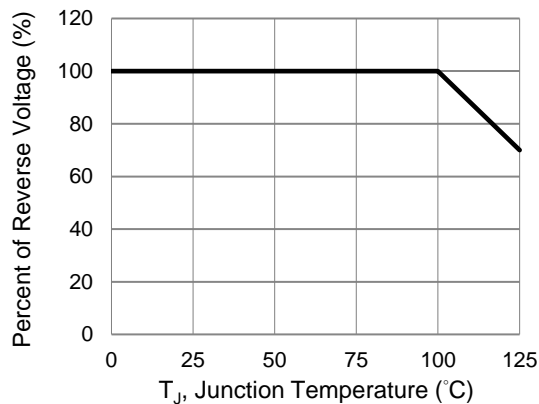


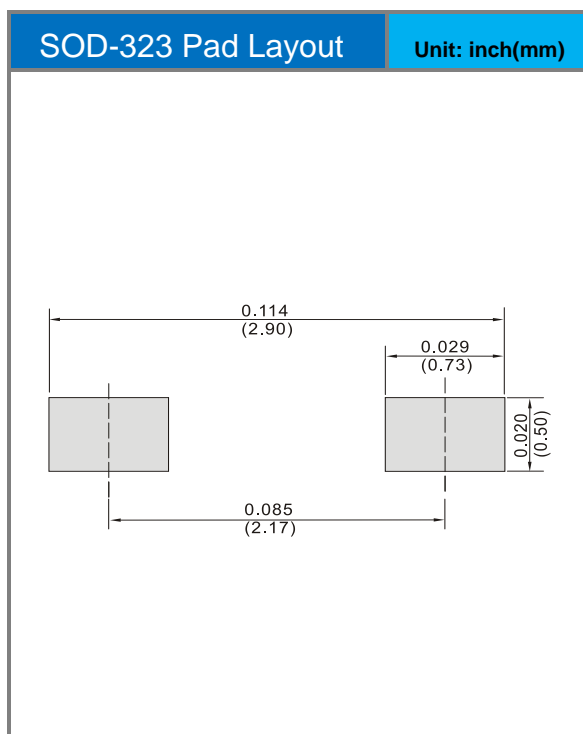
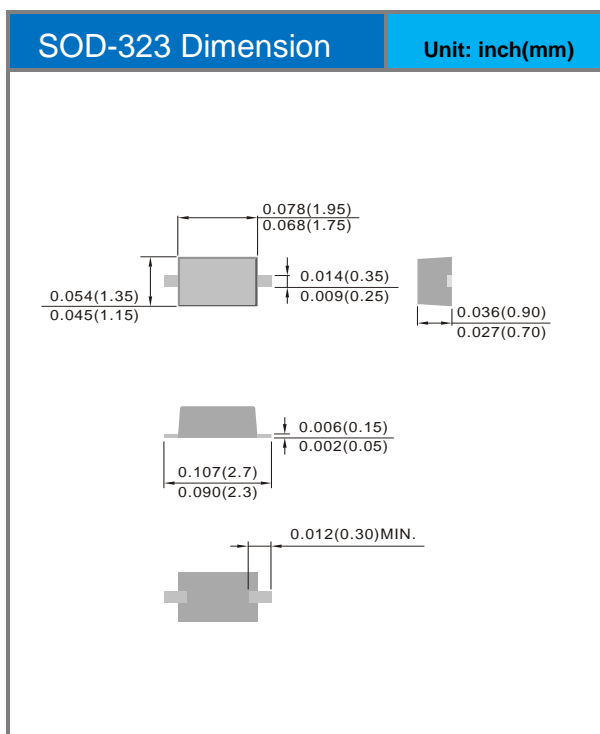
Fig.5 Operating Temperature Derating Curve

RB551V-30-AU

Product and Packing Information

Part No.	Package Type	Packing Type	Marking
RB551V-30-AU	SOD-323	5K / 7" reel	551

Packaging Information & Mounting Pad Layout



RB551V-30-AU

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