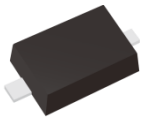
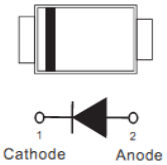
RB551V-30-AU

SURFACE MOUNT SCHOTTKY DIODES

Voltage	30 V	Current	0.5 A

SOD-323





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

Maximum Ratings and Thermal Characteristics ($T_A = 25^oC$ 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	$R_{\theta JA}$ (1)	650	$^oC/W$
Operating Junction Temperature Range	T_J	-55~125	^oC
Storage Temperature Range	T_{STG}	-55~150	^oC

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Electrical Characteristics (T_A = 25°C unless otherwise noted)

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

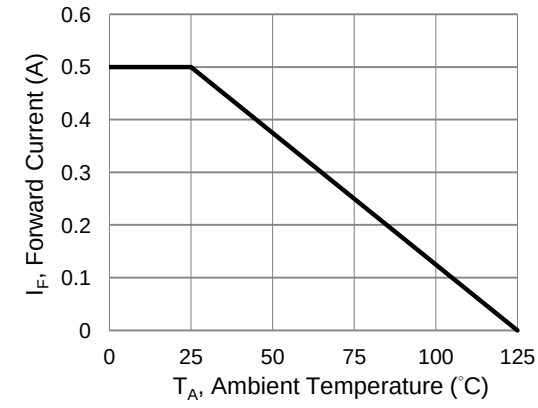


Fig.1 Forward Current Derating Curve

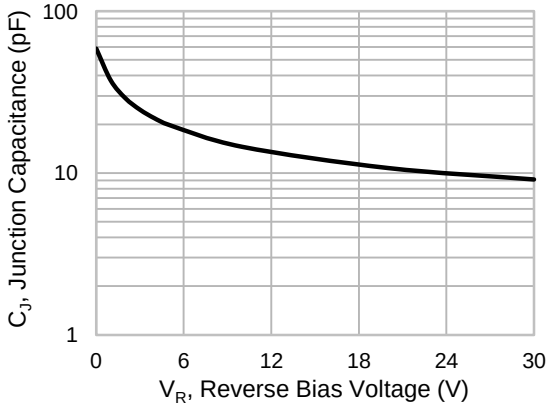


Fig.2 Typical Junction Capacitance

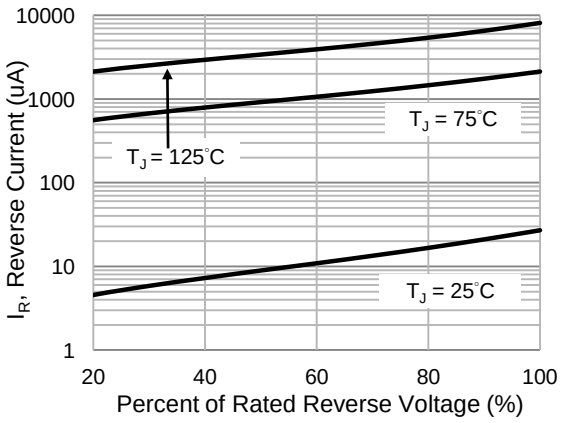


Fig.3 Typical Reverse Characteristics

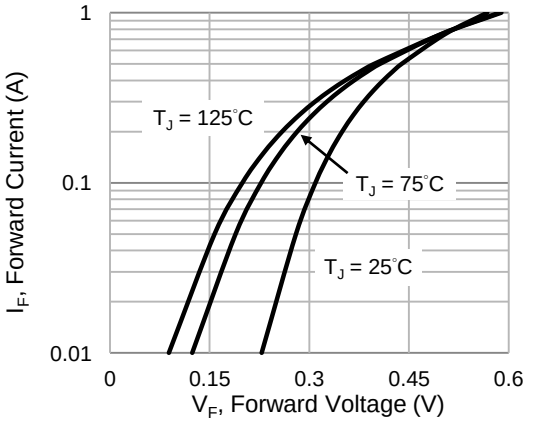


Fig.4 Typical Forward Characteristics

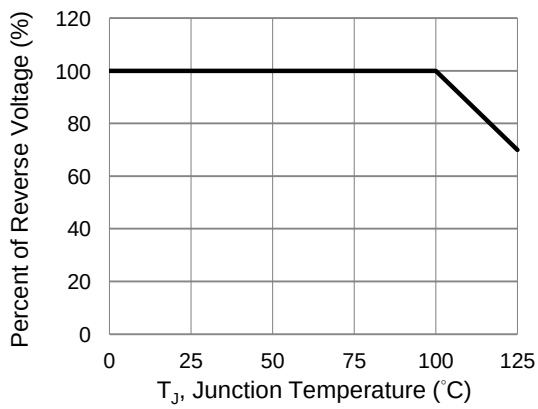


Fig.5 Operating Temperature Derating Curve

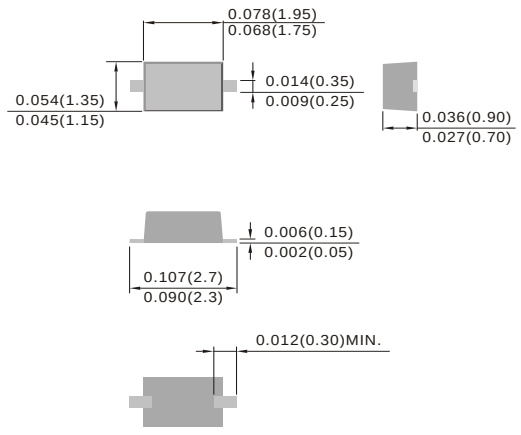
RB551V-30-AU

Part No Packing Code Version

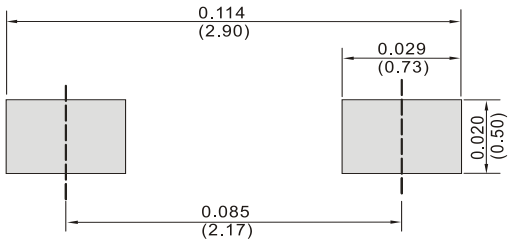
Part No Packing Code	Package Type	Packing Type	Marking	Version
RB551V-30-AU_R1_000A1	SOD-323	5K / 7” reel	551	Halogen free

Packaging Information & Mounting Pad Layout

SOD-323 Dimension — Unit: inch(mm)



SOD-323 Pad Layout — Unit: inch(mm)



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