



# SD107WS-AU

## SURFACE MOUNT SCHOTTKY DIODES

<b>Voltage</b>	<b>30 V</b>	<b>Current</b>	<b>0.2 A</b>
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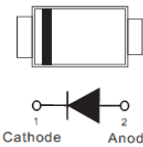
### Features

- Low turn-on voltage
- Fast switching
- PN Junction Guard Ring for Transient and ESD Protection
- 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
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0001 ounces, 0.004 grams

SOD-323



## Maximum Ratings and Thermal Characteristics (T<sub>A</sub> = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	30	V
Maximum Rms Voltage	V <sub>RMS</sub>	21	V
Maximum Dc Blocking Voltage	V <sub>DC</sub>	30	V
Maximum Average Forward Current	I <sub>F(AV)</sub>	0.2	A
Peak Forward Surge Current : 10 ms Single Half Sine-Wave Superimposed On Rated Load	I <sub>FSM</sub>	0.75	A
Maximun Junction Capacitance Measured at 1 MHZ And Applied V <sub>R</sub> = 10 V	C <sub>J</sub>	7	pF
Typical Thermal Resistance	R <sub>θJA</sub> <sup>(1)</sup>	625	°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-55~150	°C
Storage Temperature Range	T <sub>STG</sub>	-55~150	°C



## SD107WS-AU

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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	$V_F$	$I_F = 2\text{ mA}, T_J = 25^\circ\text{C}$	-	-	0.36	V
		$I_F = 50\text{ mA}, T_J = 25^\circ\text{C}$	-	-	0.55	
		$I_F = 100\text{ mA}, T_J = 25^\circ\text{C}$	-	-	0.8	
		$I_F = 50\text{ mA}, T_J = 125^\circ\text{C}$	-	0.3	-	
		$I_F = 100\text{ mA}, T_J = 125^\circ\text{C}$	-	0.39	-	
Reverse Current	$I_R^{(2)}$	$V_R = 21\text{ V}, T_J = 25^\circ\text{C}$	-	0.3	-	$\mu\text{A}$
		$V_R = 25\text{ V}, T_J = 25^\circ\text{C}$	-	-	1	
		$V_R = 25\text{ V}, T_J = 125^\circ\text{C}$	-	0.3	-	mA

**NOTES:**

1. Mounted on a FR4 PCB, single-sided copper, with 70 x 60 x 1 mm copper pad area
2. Short duration pulse test used to minimize self-heating effect



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## TYPICAL CHARACTERISTIC CURVES

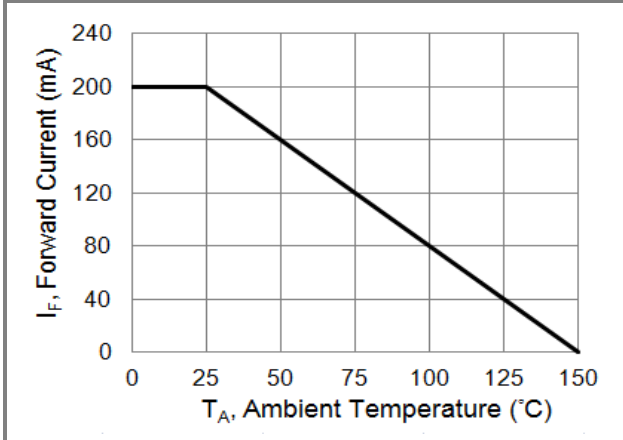


Fig.1 Forward Current Derating Curve

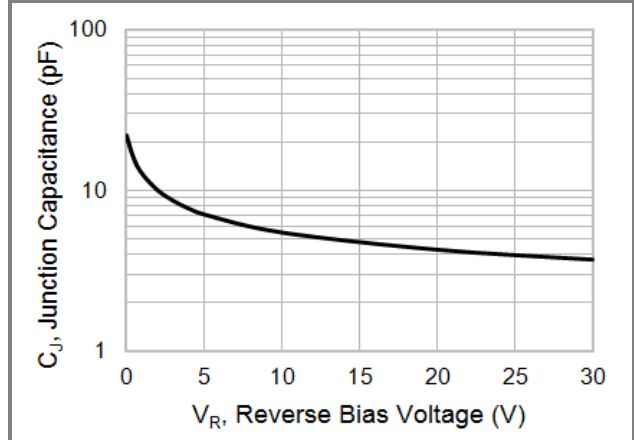


Fig.2 Typical Junction Capacitance

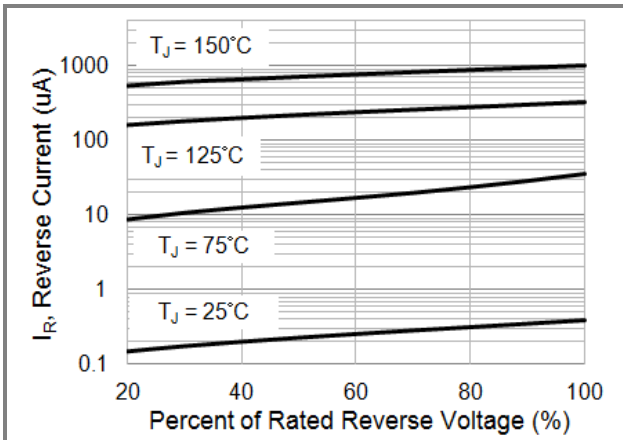


Fig.3 Typical Reverse Characteristics

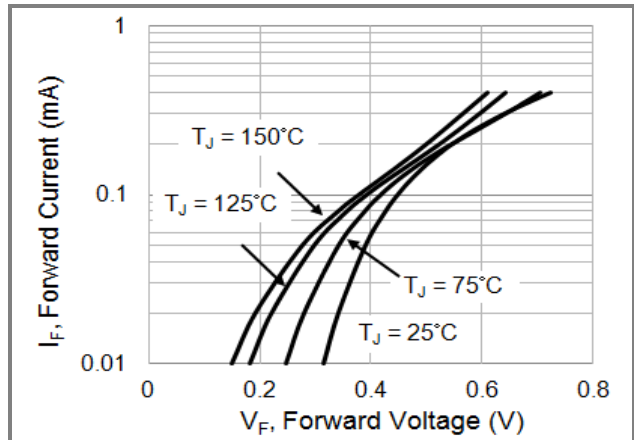


Fig.4 Typical Forward Characteristics

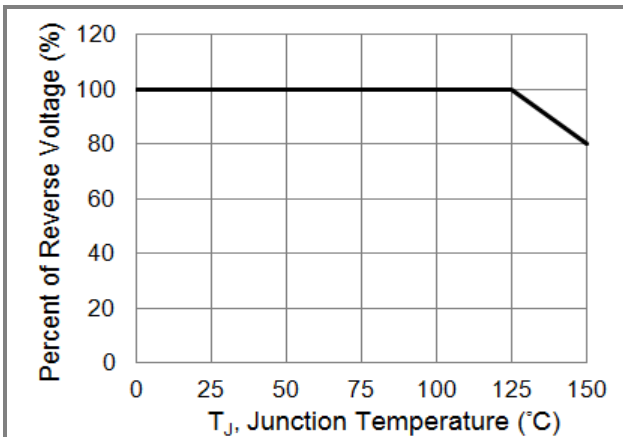


Fig.5 Operating Temperature Derating Curve

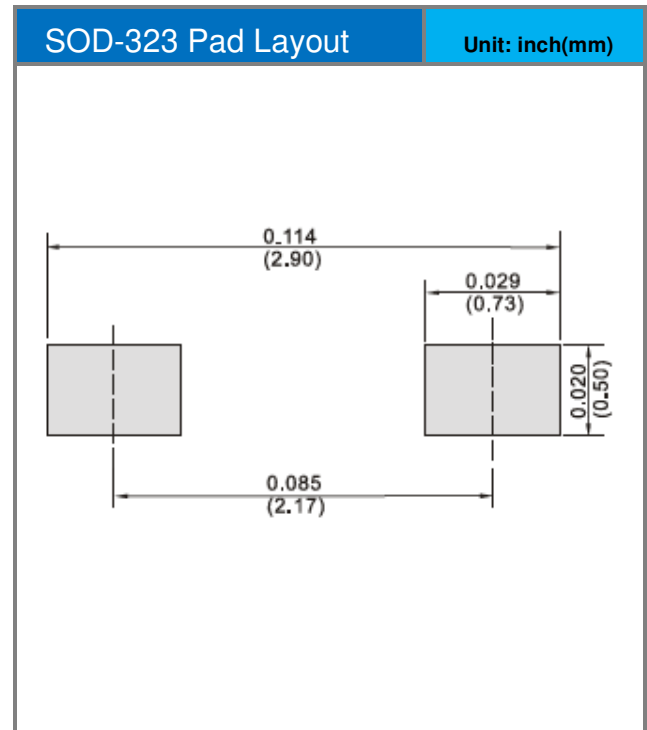
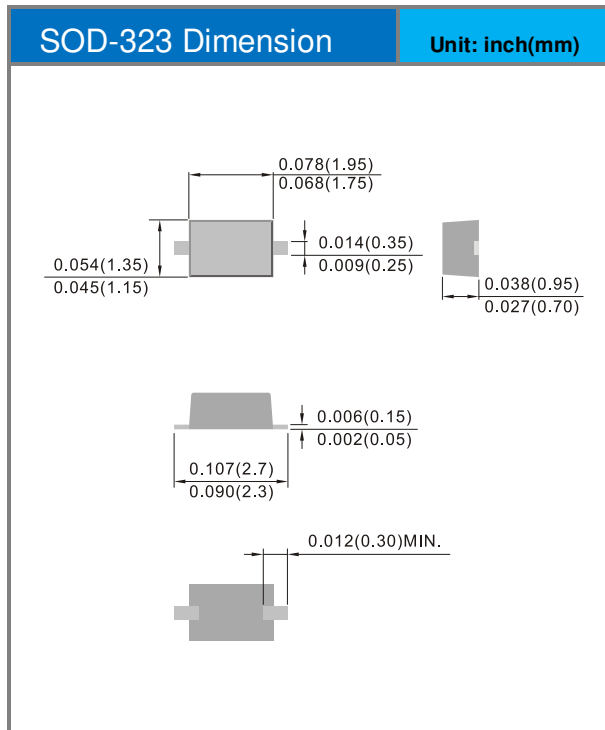


# SD107WS-AU

## Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
SD107WS-AU_R1_000A1	SOD-323	5K / 7" Reel	S9	Halogen free

## Packaging Information & Mounting Pad Layout





## SD107WS-AU

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