

## **Surface Mount Schottky Diodes**

Voltage 30 V Current 0.2 A

### **Features**

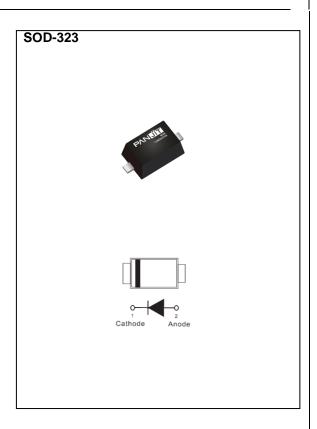
- Low turn-on voltage
- Fast switching
- PN Junction Guard Ring for Transient and ESD Protection
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### **Mechanical Data**

• Case: SOD-323 Package

• Terminals : Solderable per MIL-STD-750, Method 2026

• Approx. Weight: 0.0041 grams



## **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	Α
Peak Forward Surge Current : 10 ms Single Half Sine- Wave Superimposed On Rated Load	I <sub>FSM</sub>	0.75	Α
Maximun Junction Capacitance  Measured at 1 MHZ And Applied $V_R = 10 \text{ V}$	CJ	7	pF
Typical Thermal Resistance(Note 1)	R <sub>θJA</sub>	625	°C/W
Operating Junction Temperature Range	TJ	-55~150	°C
Storage Temperature Range	T <sub>STG</sub>	-55~150	°C



## **Electrical Characteristics** (T<sub>A</sub> = 25°C unless otherwise noted)

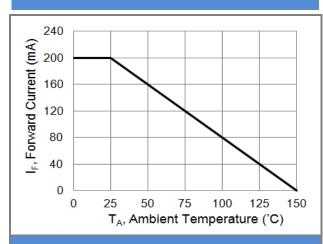
PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS	
Forward Voltage	VF	I <sub>F</sub> = 2 mA, T <sub>J</sub> = 25 °C	ı	ı	0.36	V	
		I <sub>F</sub> = 50 mA, T <sub>J</sub> = 25 °C	ı	ı	0.55		
		I <sub>F</sub> = 100 mA, T <sub>J</sub> = 25 °C	-	ı	0.8		
		I <sub>F</sub> = 50 mA, T <sub>J</sub> = 125 °C	-	0.3	1		
		I <sub>F</sub> = 100 mA, T <sub>J</sub> = 125 °C	-	0.39	ı		
Reverse Current <sup>(Note 2)</sup>	I <sub>R</sub>	V <sub>R</sub> = 21 V, T <sub>J</sub> = 25 °C	-	0.3	-		
		V <sub>R</sub> = 25 V, T <sub>J</sub> = 25 °C	-	-	1	uA	
		V <sub>R</sub> = 25 V, T <sub>J</sub> = 125 °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.



#### **TYPICAL CHARACTERISTIC CURVES**



**Fig.1 Forward Current Derating Curve** 

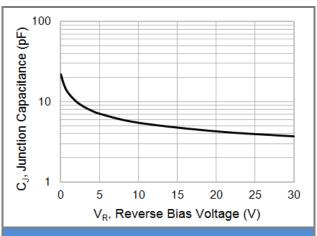


Fig.2 Typical Junction Capacitance

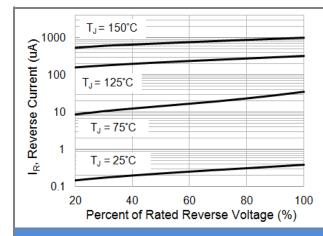


Fig.3 Typical Reverse Characteristics

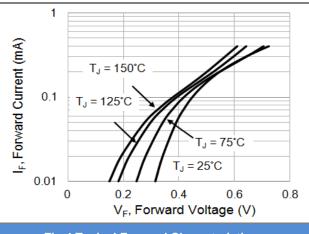
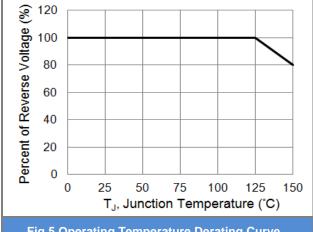


Fig.4 Typical Forward Characteristics



**Fig.5 Operating Temperature Derating Curve** 

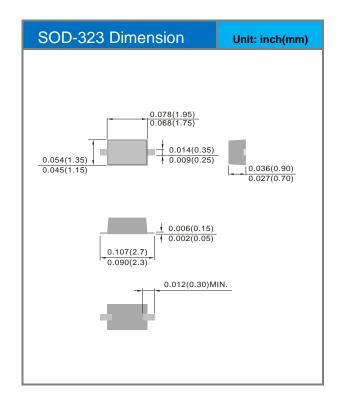
SD107WS-AU-REV.07 January 19,2024 Page 3

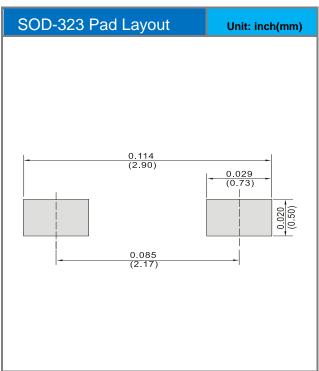


### **Product and Packing Information**

Part No.	Package Type	Packing Type	Marking
SD107WS-AU	SOD-323	5K pcs / 7" reel	S9

## **Packaging Information & Mounting Pad Layout**







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