

SD101AWS-G, SD101BWS-G, SD101CWS-G

Vishay Semiconductors

Small Signal Schottky Diodes



DESIGN SUPPORT TOOLS click logo to get started



MECHANICAL DATA

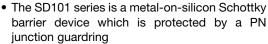
Case: SOD-323

Weight: approx. 4.0 mg
Packaging codes/options:

18/10K per 13" reel (8 mm tape), 10K/box 08/3K per 7" reel (8 mm tape), 15K/box

FEATURES

For general purpose applications





 The low forward voltage drop and fast switching make it ideal for protection of MOS devices, steering, biasing and coupling diodes for fast switching and low logic level applications



GREEN

- AEC-Q101 qualified available (part number on request)
- Base P/N-G3 green, commercial grade
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>

PARTS TABLE					
PART	ORDERING CODE	IDERING CODE CIRCUIT CONFIGURATION TYPE MARKING		REMARKS	
SD101AWS-G	SD101AWS-G3-08 or SD101AWS-G3-18	Single	SK		
SD101BWS-G	SD101BWS-G3-08 or SD101BWS-G3-18	Single	SL	Tape and reel	
SD101CWS-G	SD101CWS-G3-08 or SD101CWS-G3-18	Single	SM		

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified)					
PARAMETER	TEST CONDITION	PART	SYMBOL	VALUE	UNIT
		SD101AWS-G	V_{RRM}	60	V
Repetitive peak reverse voltage		SD101BWS-G	V_{RRM}	50	V
		SD101CWS-G	V_{RRM}	40	V
Power dissipation (infinite heatsink) (1)			P _{tot}	150	mW
Forward continuous current			I _F	30	mA
Maximum single cycle surge	10 μs square wave		I _{FSM}	2	А

Note

⁽¹⁾ Valid provided that electrodes are kept at ambient temperature

THERMAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)					
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT	
Thermal resistance junction to ambient air (1)		R _{thJA}	650	K/W	
Junction temperature (1)		Tj	125	°C	
Operating temperature range		T _{op}	-55 to +125	°C	
Storage temperature range		T _{stg}	-65 to +150	°C	

Note

⁽¹⁾ Valid provided that electrodes are kept at ambient temperature

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ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)							
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
	I _R = 10 μA	SD101AWS-G	V _(BR)	60			V
Reverse breakdown voltage		SD101BWS-G	V _(BR)	50			V
		SD101CWS-G	V _(BR)	40			V
Leakage current	V _R = 50 V	SD101AWS-G	I _R			200	nA
	V _R = 40 V	SD101BWS-G	I _R			200	nA
	V _R = 30 V	SD101CWS-G	I _R			200	nA
	I _F = 1 mA	SD101AWS-G	V _F			410	mV
		SD101BWS-G	V _F			400	mV
Converse voltage drep		SD101CWS-G	V _F			390	mV
Forward voltage drop		SD101AWS-G	V _F			1000	mV
	I _F = 15 mA	SD101BWS-G	V _F			950	mV
		SD101CWS-G	V _F			900	mV
	V _R = 0 V, f = 1 MHz	SD101AWS-G	C _D			2.0	ns
Junction capacitance		SD101BWS-G	C _D			2.1	ns
		SD101CWS-G	C _D			2.2	ns
Reverse recovery time	$I_F = I_R = 5 \text{ mA},$ recover to 0.1 I_R		t _{rr}			1	ns

TYPICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

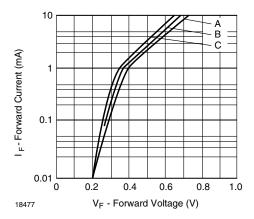


Fig. 1 - Typical Variation of Forward Current vs. Forward Voltage

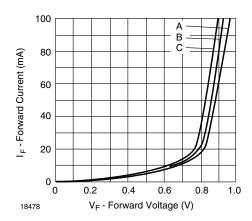


Fig. 2 - Typical Forward Conduction Curve

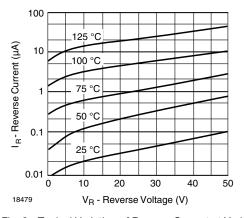


Fig. 3 - Typical Variation of Reverse Current at Various Temperatures

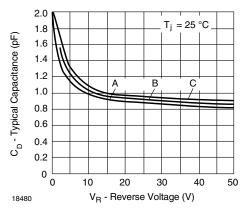


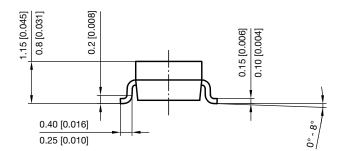
Fig. 4 - Typical Capacitance Curve as a Function of Reverse Voltage

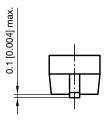


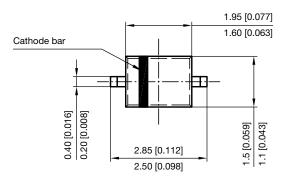
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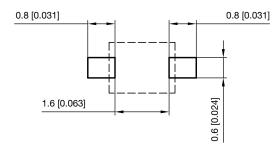
PACKAGE DIMENSIONS in millimeters (inches): SOD-323







Footprint recommendation:



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