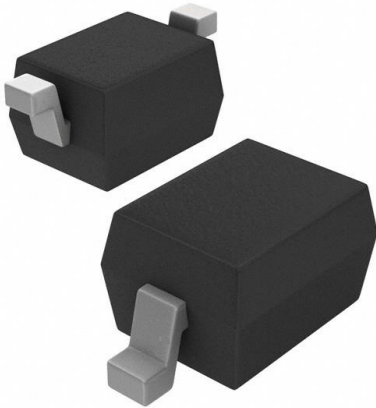


# SD101CWS-G3-18 Datasheet

[www.digi-electronics.com](http://www.digi-electronics.com)



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	SD101CWS-G3-18-DG
Manufacturer	<a href="#">Vishay General Semiconductor - Diodes Division</a>
Manufacturer Product Number	SD101CWS-G3-18
Description	DIODE SCHOTTKY 40V 30MA SOD323
Detailed Description	Diode 40 V 30mA Surface Mount SOD-323

This model SD101CWS-G3-18 is available at DiGi Electronics.

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## Purchase and inquiry

Manufacturer Product Number:

SD101CWS-G3-18

Series:

-

Technology:

Schottky

Current - Average Rectified (Io):

30mA

Speed:

Small Signal  $\leq$  200mA (Io), Any Speed

Current - Reverse Leakage @ Vr:

200 nA @ 30 V

Mounting Type:

Surface Mount

Supplier Device Package:

SOD-323

Base Product Number:

SD101

Manufacturer:

Vishay General Semiconductor - Diodes Division

Product Status:

Active

Voltage - DC Reverse (Vr) (Max):

40 V

Voltage - Forward (Vf) (Max) @ If:

900 mV @ 15 mA

Reverse Recovery Time (trr):

1 ns

Capacitance @ Vr, F:

2.2pF @ 0V, 1MHz

Package / Case:

SC-76, SOD-323

Operating Temperature - Junction:

-55°C ~ 125°C

## Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.10.0070

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99


[www.vishay.com](http://www.vishay.com)

# 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 SD101 series is a metal-on-silicon Schottky barrier device which is protected by a PN junction guardring
- 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
- AEC-Q101 qualified available (part number on request)
- Base P/N-G3 - green, commercial grade
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS**  
 COMPLIANT  
 HALOGEN  
**FREE**  
**GREEN**  
 (5-2008)

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

ABSOLUTE MAXIMUM RATINGS ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)					
PARAMETER	TEST CONDITION	PART	SYMBOL	VALUE	UNIT
Repetitive peak reverse voltage		SD101AWS-G	$V_{RRM}$	60	V
		SD101BWS-G	$V_{RRM}$	50	V
		SD101CWS-G	$V_{RRM}$	40	V
Power dissipation (infinite heatsink) <sup>(1)</sup>			$P_{tot}$	150	mW
Forward continuous current			$I_F$	30	mA
Maximum single cycle surge	10 $\mu$ s square wave		$I_{FSM}$	2	A

**Note**
<sup>(1)</sup> Valid provided that electrodes are kept at ambient temperature

THERMAL CHARACTERISTICS ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to ambient air <sup>(1)</sup>		$R_{thJA}$	650	K/W
Junction temperature <sup>(1)</sup>		$T_j$	125	$^{\circ}\text{C}$
Operating temperature range		$T_{op}$	-55 to +125	$^{\circ}\text{C}$
Storage temperature range		$T_{stg}$	-65 to +150	$^{\circ}\text{C}$

**Note**
<sup>(1)</sup> Valid provided that electrodes are kept at ambient temperature


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# SD101AWS-G, SD101BWS-G, SD101CWS-G

Vishay Semiconductors

ELECTRICAL CHARACTERISTICS ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)							
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
Reverse breakdown voltage	$I_R = 10\text{ }\mu\text{A}$	SD101AWS-G	$V_{(BR)}$	60			V
		SD101BWS-G	$V_{(BR)}$	50			V
		SD101CWS-G	$V_{(BR)}$	40			V
Leakage current	$V_R = 50\text{ V}$	SD101AWS-G	$I_R$			200	nA
	$V_R = 40\text{ V}$	SD101BWS-G	$I_R$			200	nA
	$V_R = 30\text{ V}$	SD101CWS-G	$I_R$			200	nA
Forward voltage drop	$I_F = 1\text{ mA}$	SD101AWS-G	$V_F$			410	mV
		SD101BWS-G	$V_F$			400	mV
		SD101CWS-G	$V_F$			390	mV
	$I_F = 15\text{ mA}$	SD101AWS-G	$V_F$			1000	mV
		SD101BWS-G	$V_F$			950	mV
		SD101CWS-G	$V_F$			900	mV
Junction capacitance	$V_R = 0\text{ V}, f = 1\text{ MHz}$	SD101AWS-G	$C_D$			2.0	ns
		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 ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)

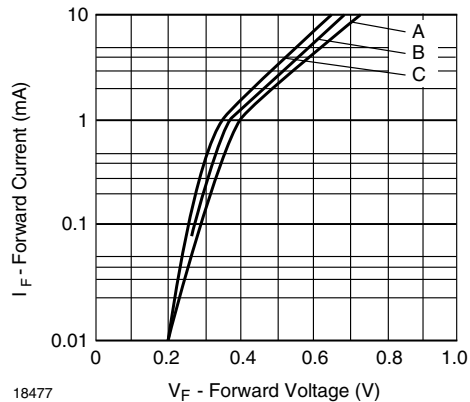


Fig. 1 - Typical Variation of Forward Current vs. Forward Voltage

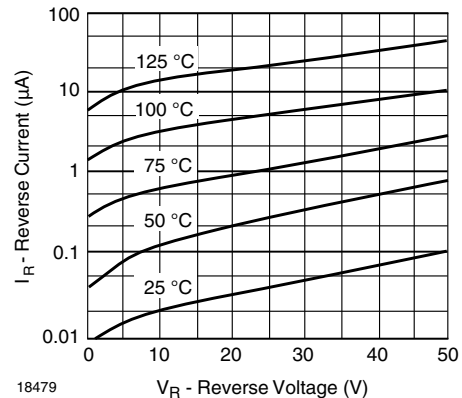


Fig. 3 - Typical Variation of Reverse Current at Various Temperatures

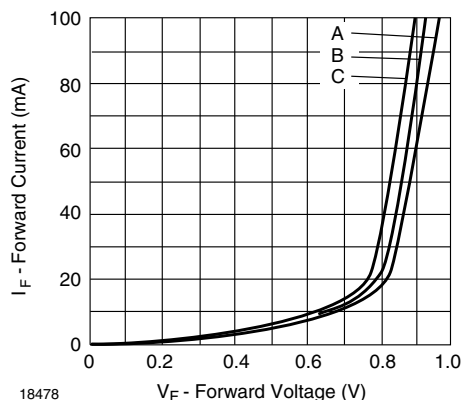


Fig. 2 - Typical Forward Conduction Curve

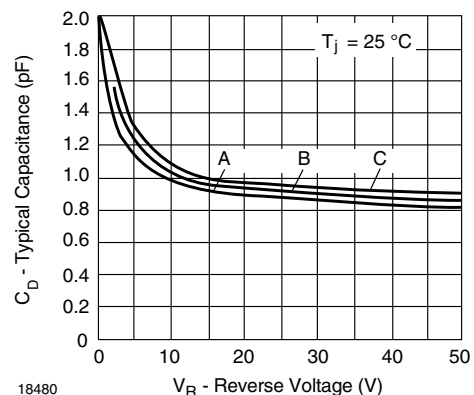


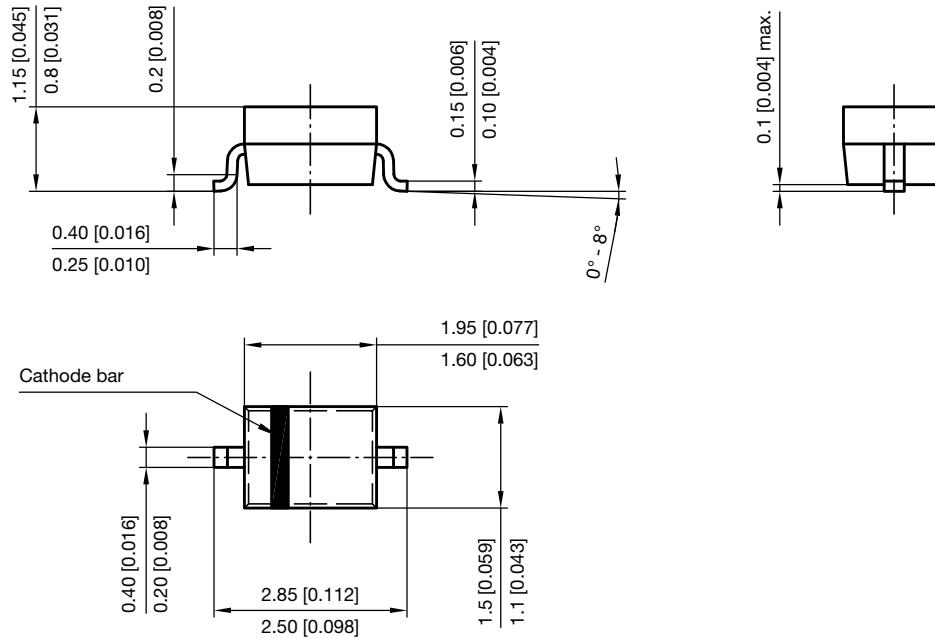
Fig. 4 - Typical Capacitance Curve as a Function of Reverse Voltage


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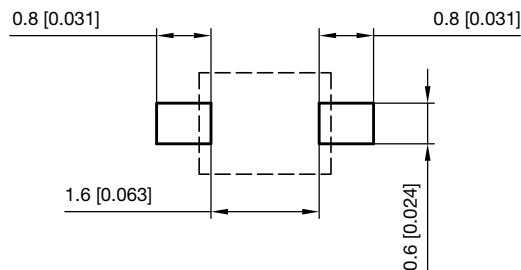
# SD101AWS-G, SD101BWS-G, SD101CWS-G

Vishay Semiconductors

## PACKAGE DIMENSIONS in millimeters (inches): SOD-323



Footprint recommendation:



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 Created - Date: 24.August.2004  
 Rev. 6 - Date: 23.Sept.2016  
 17443



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