



SD101AWS - SD101CWS

SURFACE MOUNT SCHOTTKY BARRIER DIODE

625

-65 to +125

Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Capacitance
- Ultra-small Surface Mount Package
- Lead Free/RoHS Compliant Version (Note 2)

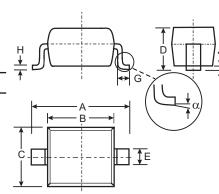
Mechanical Data

- Case: SOD-323
- Case material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Polarity: Cathode Band
- Leads: Solderable per MIL-STD-202, Method 208
- Lead Free Plating (Matte Tin Finish annealed over Alloy 42 leadframe).
- Marking: See Page 3
- SD101AWS Marking Code: S1 or SK
- SD101BWS Marking Code: S2 or SK
- SD101CWS Marking Code: S3 or SC or SK

Thermal Resistance, Junction to Ambient Air (Note 1)

Operating and Storage Temperature Range

• Weight: 0.004 grams (approximate)



SOD-323				
Dim	Min	Max		
Α	2.30	2.70		
В	1.60 1.80			
С	1.20 1.40			
D	1.05 Typical			
Е	0.25	0.35		
G	0.20	0.40		
н	0.10 0.15			
J	0.05 Typical			
α	0° 8°			
All Dimensions in mm				

Maximum Ratings @ T _A = 25°C unless otherwise specified						
Characteristic		Symbol	SD101AWS	SD101BWS	SD101CWS	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		V _{RRM} V _{RWM} V _R	60	50	40	v
RMS Reverse Voltage		V _{R(RMS)}	42	35	28	V
Forward Continuous Current (Note 1)		I _{FM}		15		mA
Non-Repetitive Peak Forward Surge Current	@ t \le 1.0s @ t = 10 μ s	I _{FSM}	50 2.0		mA A	
Power Dissipation (Note 1)		PD		200		mW

Note: 1. Part mounted on FR-4 PC board with recommended pad layout, which can be found on our website at http://www.diodes.com/datasheets/ap02001.pdf. 2. No purposefully added lead.

 $R_{\theta JA}$

T_i, T_{STG}

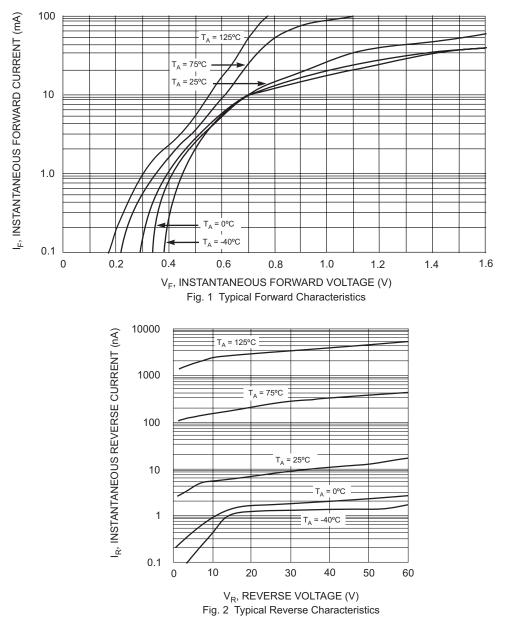
°C/W

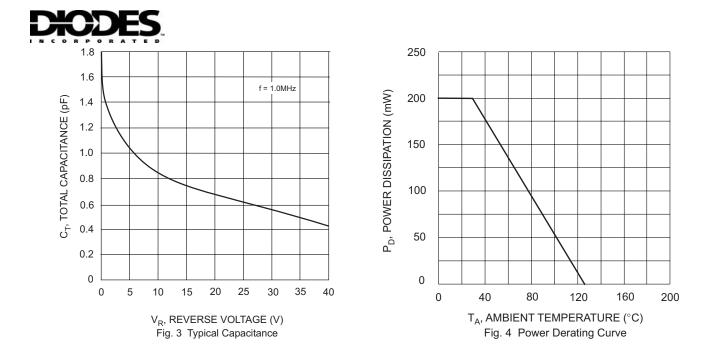
°C



Electrical Characteristics @ T _A = 25°C unless otherwise specified						
Characteristic		Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 3)	SD101AWS SD101BWS SD101CWS	V _{(BR)R}	60 50 40		V	$I_{R} = 10\mu A$ $I_{R} = 10\mu A$ $I_{R} = 10\mu A$
Forward Voltage Drop	SD101AWS SD101BWS SD101CWS SD101AWS SD101AWS SD101BWS SD101CWS	V _{FM}		0.41 0.40 0.39 1.00 0.95 0.90	v	$I_F = 1.0mA$ $I_F = 1.0mA$ $I_F = 1.0mA$ $I_F = 15mA$ $I_F = 15mA$ $I_F = 15mA$
Peak Reverse Current (Note 3)	SD101AWS SD101BWS SD101CWS	I _{RM}	_	200	nA	$V_{R} = 50V$ $V_{R} = 40V$ $V_{R} = 30V$
Total Capacitance	SD101AWS SD101BWS SD101CWS	Ст	_	2.0 2.1 2.2	pF	V _R = 0V, f = 1.0MHz
Reverse Recovery Time		t _{rr}		1.0	ns	$I_F = I_R = 5.0 \text{mA},$ $I_{rr} = 0.1 \text{ x } I_R, R_L = 100 \Omega$

Notes: 3. Short duration test pulse used to minimize self-heating effect.





Ordering Information (Note 4)

Device	Packaging	Shipping
SD101AWS-7-F	SOD-323	3000/Tape & Reel
SD101BWS-7-F	SOD-323	3000/Tape & Reel
SD101CWS-7-F	SOD-323	3000/Tape & Reel

Notes: 4. For Packaging Details, go to our website at: http://www.diodes.com/datasheets/ap02007.pdf.

Marking Information



XX = Product Type Marking Code (See Page 1)

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