

SD103AWS - SD103CWS

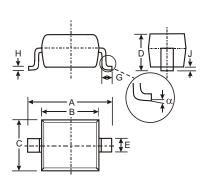
SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Reverse Capacitance
- Ultra-Small Surface Mount Package
- Also Available in Lead Free Version

Mechanical Data

- Case: SOD-323, Plastic
- Case material UL Flammability Rating Classification 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Polarity: Cathode Band
- Leads: Solderable per MIL-STD-202, Method 208
- Also Available in Lead Free Plating (Matte Tin Finish). Please see Ordering Information, Note 4, on Page 2
- SD103AWS Marking: S4
- SD103BWS Marking: S5 or S4
- SD103CWS Marking: S6 or S5 or S4
- Weight: 0.004 grams (approx.)



SOD-323				
Dim	Min	Max		
Α	2.30	2.70		
В	1.60 1.80			
С	1.20 1.40			
D	1.05 Typical			
E	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	SD103AWS	SD103BWS	SD103CWS	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	40	30	20	٧
RMS Reverse Voltage	V _{R(RMS)}	28	21	14	V
Forward Continuous Current (Note 1)	I _{FM}		350		mA
Non-Repetitive Peak Forward Surge Current @ $t \le 1.0s$	I _{FSM}		1.5		Α
Power Dissipation (Note 1)	P _d		200		mW
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$		625		°C/W
Operating and Storage Temperature Range	T _j , T _{STG}		-65 to +125		°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic		Symbol	Min	Тур	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	SD103AWS SD103BWS SD103CWS	V _{(BR)R}	40 30 20	_	_	V	$\begin{split} I_R &= 10 \mu A \\ I_R &= 10 \mu A \\ I_R &= 10 \mu A \end{split}$
Forward Voltage Drop (Note 2)		V _{FM}	_	_	0.37 0.60	٧	I _F = 20mA I _F = 200mA
Peak Reverse Current (Note 2)	SD103AWS SD103BWS SD103CWS	I _{RM}	_	_	5.0	μΑ	V _R = 30V V _R = 20V V _R = 10V
Total Capacitance		Ст	_	28	_	pF	$V_R = 0V$, $f = 1.0MHz$
Reverse Recovery Time		t _{rr}		10	_	ns	$I_F = I_R = 200 \text{mA},$ $I_{rr} = 0.1 \text{ x } I_R, R_L = 100 \Omega$

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



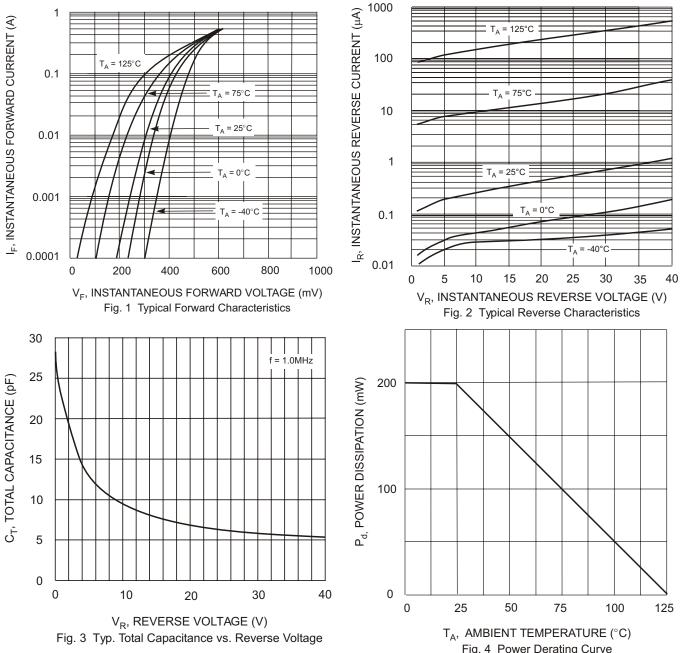


Fig. 4 Power Derating Curve

Ordering Information (Note 3)

Device	Packaging	Shipping
SD103AWS-7	SOD-323	3000/Tape & Reel
SD103BWS-7	SOD-323	3000/Tape & Reel
SD103CWS-7	SOD-323	3000/Tape & Reel

Notes:

- 3. For Packaging Details, go to our website at: http://www.diodes.com/datasheets/ap02007.pdf.
- 4. For Lead Free version (with Lead Free terminal finish) part number, please add "-F" suffix to part number above. Example: SD103CWS-7-F.

Marking Information

