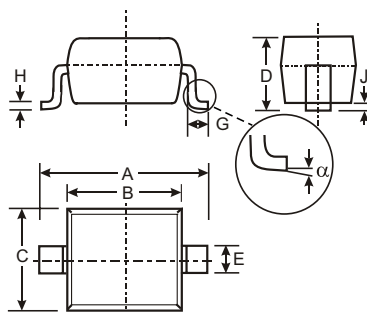


Features

- 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
A	2.30	2.70
B	1.60	1.80
C	1.20	1.40
D	1.05 Typical	
E	0.25	0.35
G	0.20	0.40
H	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	V
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 ≤ 1.0s	I _{FSM}	1.5			A
Power Dissipation (Note 1)	P _d	200			mW
Thermal Resistance, Junction to Ambient Air (Note 1)	R _{θJA}	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	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	SD103AWS SD103BWS SD103CWS V _{(BR)R}	40 30 20	—	—	V	I _R = 10μA I _R = 10μA I _R = 10μA
Forward Voltage Drop (Note 2)	V _{FM}	—	—	0.37 0.60	V	I _F = 20mA I _F = 200mA
Peak Reverse Current (Note 2)	SD103AWS SD103BWS SD103CWS I _{RM}	—	—	5.0	μA	V _R = 30V V _R = 20V V _R = 10V
Total Capacitance	C _T	—	28	—	pF	V _R = 0V, f = 1.0MHz
Reverse Recovery Time	t _{rr}	—	10	—	ns	I _F = I _R = 200mA, I _{rr} = 0.1 x I _R , R _L = 100Ω

- Notes:
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.

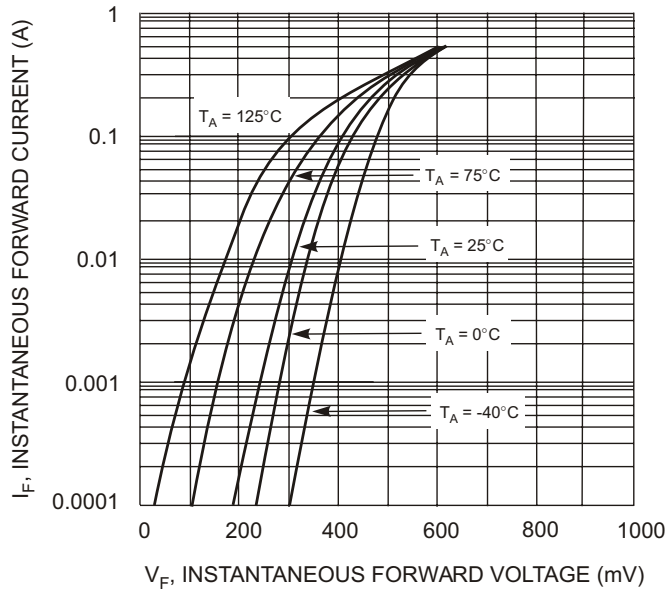


Fig. 1 Typical Forward Characteristics

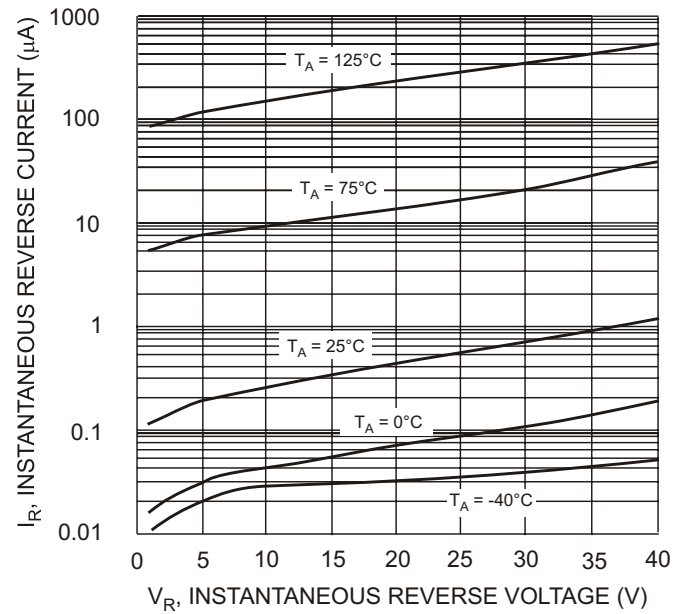


Fig. 2 Typical Reverse Characteristics

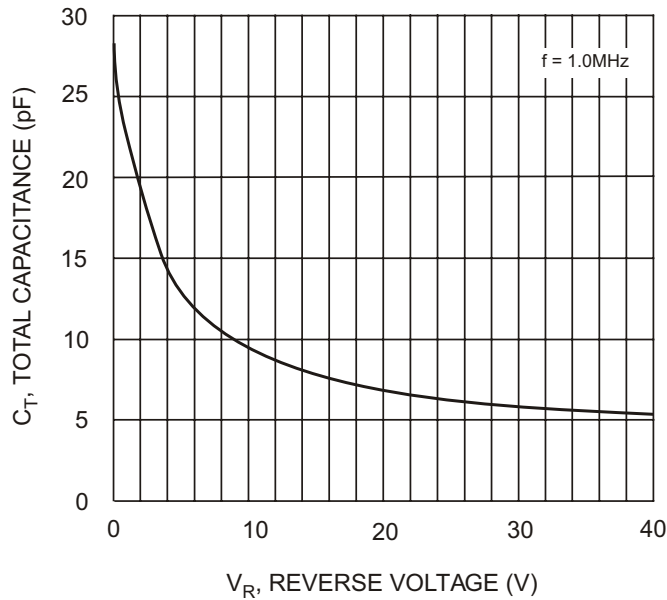


Fig. 3 Typ. Total Capacitance vs. Reverse Voltage

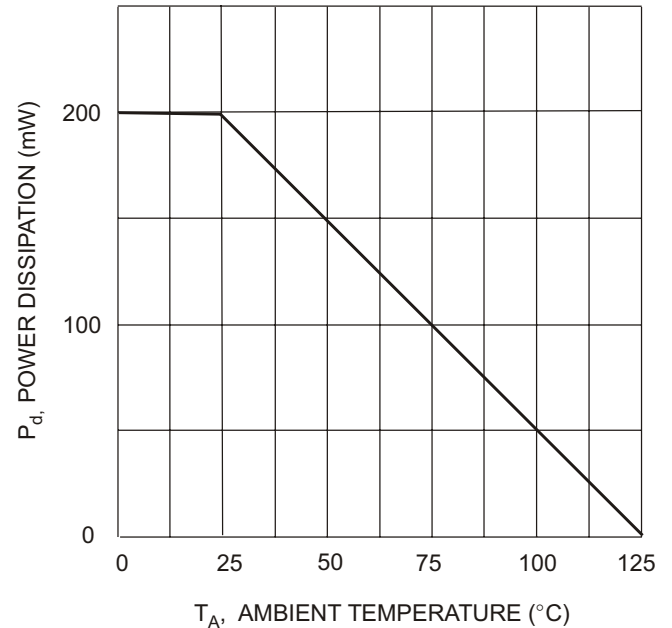


Fig. 4 Power Derating Curve

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



XX = Product Type Marking Code
(See Page 1)