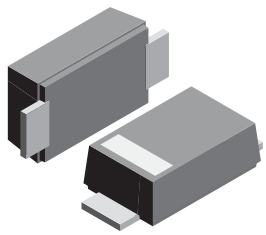
SD103AWS - SD103CWS

SURFACE MOUNT SCHOTTKY BARRIER DIODE



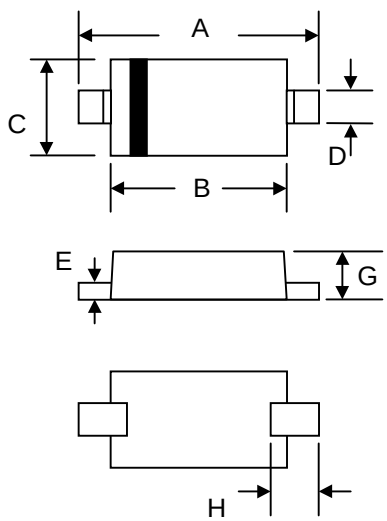
Features

- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection
- Designed for Surface Mount Application
- Plastic Material – UL Recognition Flammability Classification 94V-O

Mechanical Data

- Case: SOD-323, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.004 grams (approx.)
- Marking: SD103AWS S6
  SD103BWS S7
  SD103CWS S8

RoHS COMPLIANT



SOD-323		
Dim	**Min**	**Max**
A	2.30	2.70
B	1.75	1.95
C	1.15	1.35
D	0.25	0.35
E	0.05	0.15
G	0.70	0.95
H	0.30	—
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
Forward Continuous Current (Note 1)	I_F	350			mA
Non-Repetitive Peak Forward Surge Current @ t < 1.0s	I_{FSM}	2.0			A
Power Dissipation (Note 1)	P_d	200			mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	625			°C/W
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +125			°C

Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	All Types	Unit	Test Condition
Reverse Breakdown Voltage SD103AWS SD103BWS SD103CWS	$V_{(BR)R}$	40 30 20	V	@ I_R = 10μA, t_p < 300μS
Forward Voltage Drop	V_{FM}	0.37 0.60	V	@ I_F = 20mA @ I_F = 200mA
Peak Reverse Leakage Current	I_{RM}	5.0	μA	@ Rated DC Blocking Voltage
Typical Junction Capacitance	C_j	50	pF	V_R = 0V, f = 1.0MHz
Typical Reverse Recovery Time	t_{rr}	10	nS	I_F = I_R = 200mA I_{RR} = 0.1 x I_R, R_L = 100Ω

Note: 1. Valid provided that terminals are kept at ambient temperature.

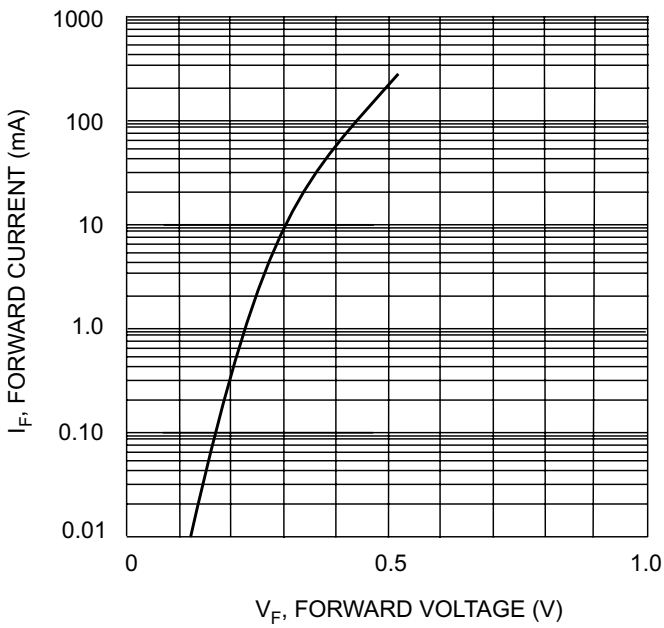


Fig. 1 Typical Forward Characteristics

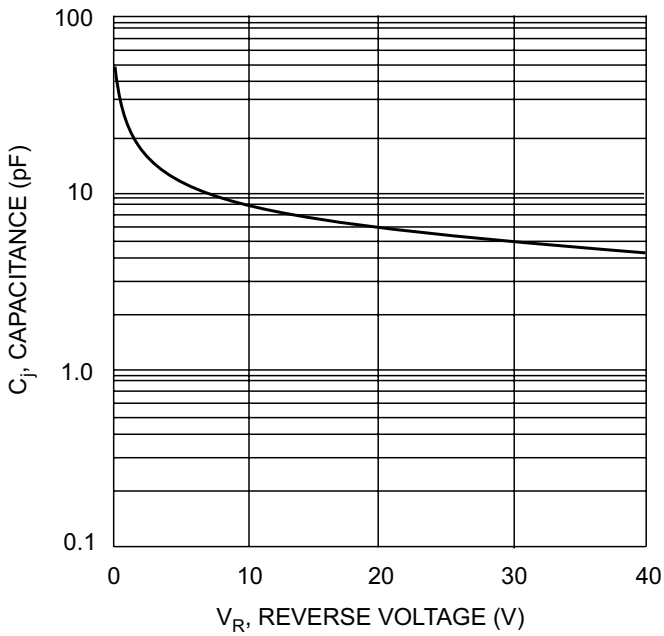


Fig. 2 Typ. Junction Capacitance vs Reverse Voltage