

Surface Mount Schottky Barrier Diodes

Features:

- *Low Forward Voltage
- *Very Small Conduction Losses
- *Schottky Barrier Diodes Encapsulated in a SOD-323 Package

Mechanical Data:

- *Polarity: Cathode Band
- *Leads: Solderable per MIL-STD-202 Method 208
- *Wight: 0.004grams(approx)

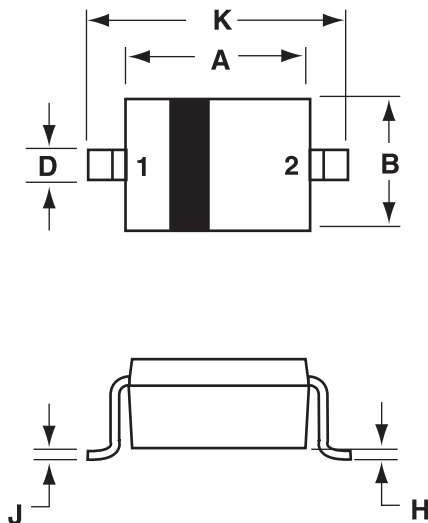
SMALL SIGNAL
SCHOTTKY DIODES
350 mAMPERES
20-40 VOLTS



SOD-323

SOD-323 Outline Demensions

Unit:mm



Dim	MILLMETERS	
	Min	Max
A	1.60	1.80
B	1.15	1.35
C	0.80	1.00
D	0.25	0.40
E	0.15 REF	
H	0.00	0.10
J	0.089	0.377
K	2.30	2.70

PIN 1.CATHODE
2.ANODE

Maximum Ratings ($T_A=25^{\circ}\text{C}$ Unless otherwise noted)

Characteristic	Symbol	SD103AWS	SD103BWS	SD103CWS	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	40	30	20	V
Working Peak Reverse Voltage	V_{RWM}				
DC Blocking Voltage	V_R				
RMS Reverse Voltage	$V_{R(RMS)}$	28	21	14	V
Average Rectified Output Current	I_{FAV}	350			mA
Non-Repetitive Peak Forward Surge Current @ $t \leq 1.0\text{S}$	I_{FSM}	1.5			A
Power Dissipation ⁽¹⁾	P_D	200			mW
Typical thermal Resistance junction to Ambient Note ⁽¹⁾	$R_{\theta JA}$	625			$^{\circ}\text{C/W}$
Operating & Storage Temperature Range	T_J T_{STG}	-55 to +125			$^{\circ}\text{C}$

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ Unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage ⁽²⁾ ($I_R=100\mu\text{A}$)	$V_{(BR)R}$	40 30 20	- - -	- - -	V
Forward Voltage Note ⁽²⁾ $I_F=20\text{mA}$ $I_F=200\text{mA}$	V_F	- -	- -	0.37 0.60	V
Reverse Current Note ⁽²⁾ $V_R=30\text{V}, \text{SD103AWS}$ $V_R=20\text{V}, \text{SD103BWS}$ $V_R=10\text{V}, \text{SD103CWS}$	I_R	-	-	5.0	μA
Junction Capacitance, $f=1\text{MHZ}$, $V_R=0\text{VDC}$	C_j		50		PF
Reverse Recovery Time $I_F=I_R=200\text{mA}$, $t_{rr}=0.1 * I_R, R_L=100\Omega$	t_{rr}		10		ns

Device Marking

Item	Marking	Equivalent Circuit diagram
SD103AWS	S4	
SD103BWS	S5	
SD103CWS	S6	

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

2. Pulse Test : Pulse width = 300 μs , Duty Cycle $\leq 2\%$

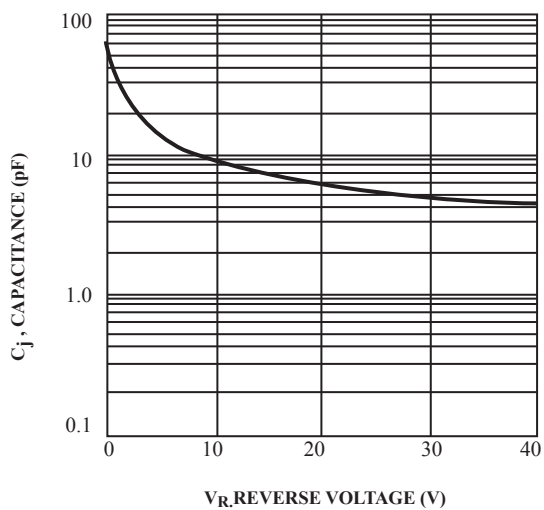


FIG. 2 Typ, Junction Capacitance vs. Reverse Voltage

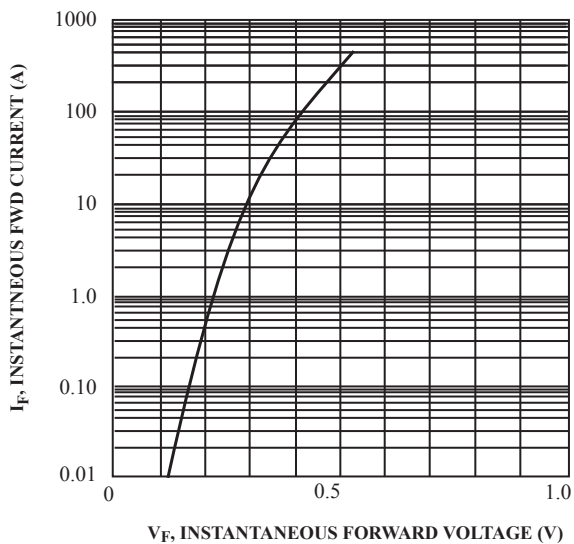


FIG. 2 Typical Forward Characteristics