

SD101AWS THRU SD101CWS

Small Signal Schottky Diodes

Features

- Low Reverse Recovery Time
- Low Reverse Capacitance
- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection

Mechanical Data

- Case: SOD-323 plastic case
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Indicated by Cathode Band

Maximum Ratings @ 25°C Unless Otherwise Specified

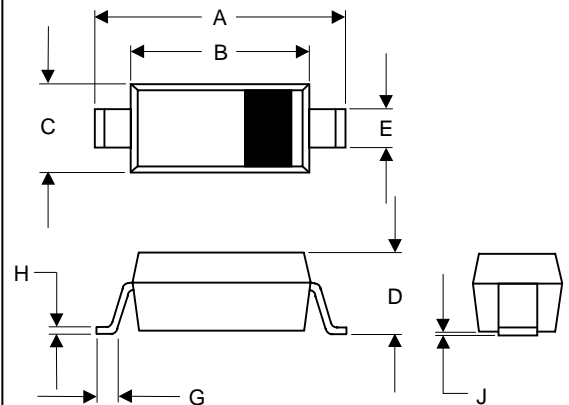
Characteristic	Symbol	SD101AWS	SD101BWS	SD101CWS
Peak Repetitive Reverse Voltage	V_{RRM}			
Working Peak Reverse Voltage	V_{RWM}	60V	50V	40V
DC Blocking Voltage	V_R			
RMS Reverse Voltage	$V_{R(RMS)}$	42V	35V	28V
Maximum single cycle surge 10us square wave	I_{FSM}	2.0A		
Power Dissipation(Note 1)	P_d	400mW		
Thermal Resistance, Junction to Ambient	R	650°C/W		
Junction Temperature	T_j	125°C		
Operation/Storage Temp. Range	T_{STG}	-55 to +150°C		

Electrical Characteristics @ 25°C Unless Otherwise Specified

Characteristic	Symbol	Max	Test Condition
Leakage Current	I_R	200nA	$V_R=50V$
		200nA	$V_R=40V$
		200nA	$V_R=30V$
Maximum Forward Voltage Drop	V_F	0.41V	$I_F=1mA$ $I_F=15mA$
		0.4V	
		.39V	
		1V	
		0.95V	
Junction Cap.	C_j	2.0pF	$V_R=0V, f=1.0MHz$
		2.1pF	
		2.2pF	
Reverse Recovery Time	t_{rr}	1ns	$I_F=I_R=5mA$, recover to 0.1 I_R

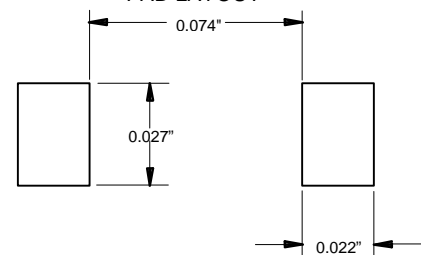
Note: 1. Valid provided that electrodes are kept at ambient temperature

SOD323



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.090	.107	2.30	2.70	
B	.063	.071	1.60	1.80	
C	.045	.053	1.15	1.35	
D	.031	.045	0.80	1.15	
E	.010	.016	0.25	0.40	
G	.004	.018	0.10	0.45	
H	.004	.010	0.10	0.25	
J	-----	.006	-----	0.15	

SUGGESTED SOLDER PAD LAYOUT



SD101AWS thru SD101CWS

Figure 1. Typical variation of forward current vs. fwd. Voltage for primary conduction through the schottky barrier

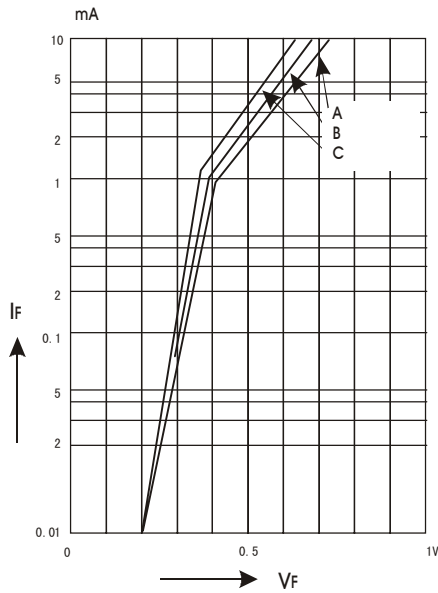


Figure 2. Typical forward conduction curve of combination Schottky barrier and PN junction guard ring

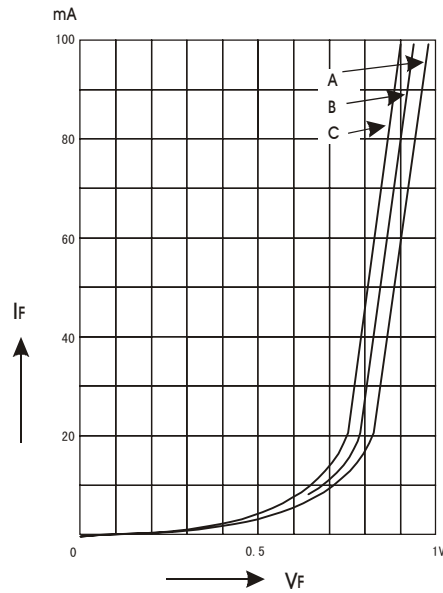


Figure 3. Typical variation of reverse current at versus temperature

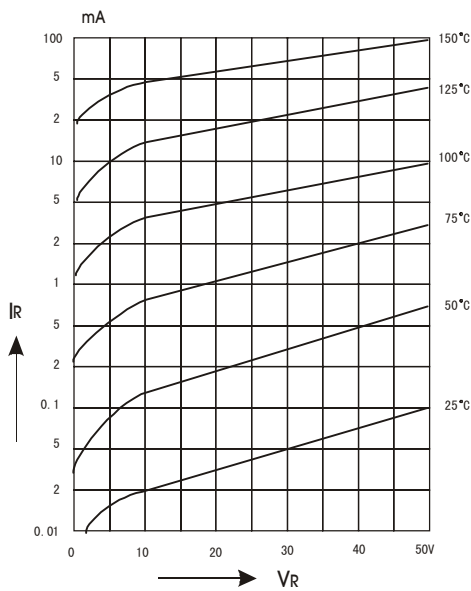


Figure 4. Typical capacitance curve as a function of reverse voltage

