

Surface Mount Schottky Barrier Diodes

(Pb) Lead(Pb)-Free

Features:

- *Low Forward Voltage
- *Guard Ring Construction for Transient Protection
- *Negligible Reverse Recovery Time
- *Low Capacitance
- *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)

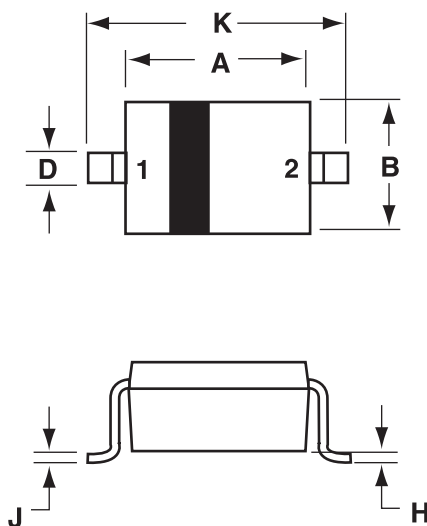
**SMALL SIGNAL
SCHOTTKY DIODES
15m AMPERES
40-60 VOLTS**



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		
J	0.089	0.177
K	2.30	2.70

PIN 1.CATHODE
2.ANODE

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

Characteristic	Symbol	SD101AWS	SD101BWS	SD101CWS	Unit
Peak Reverse Voltage Repetitive Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	60	50	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	42	35	28	V
Average Rectified Output Current	I_{FAV}	15			mA
Repetitive Peak Forward Current @ $t < 1.0\text{S}$ @ $t = 10\mu\text{S}$	I_{FSM}	50 2.0			mA A
Power Dissipation	P_D	200			mW
Typical thermal Resistance junction to Ambient Note	$R_{\theta JA}$	625			$^{\circ}\text{C}/\text{W}$
Operating & Storage Temperature Range	T_J, T_{STG}	-65 to +125			$^{\circ}\text{C}$

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

Characteristic	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage $I_R=10\mu\text{A}$	$V_{(BR)R}$	60 50 40	- - -	- - -	V
Forward Voltage Note $I_F=1.0\text{mA}$	V_F	-	-	0.41 0.40 0.39	V
$I_F=15\text{mA}$				1.00 0.95 0.90	
Reverse Current Note $V_R=50\text{V}, \text{SD101AWS}$ $V_R=40\text{V}, \text{SD101BWS}$ $V_R=30\text{V}, \text{SD101CWS}$	I_R	-	-	0.2	μA
Junction Capacitance, $f=1\text{MHZ}, V_R=0\text{VDC}$	C_T	-	2.0 2.1 2.2	-	pF
Reverse Recovery Time $I_F=I_R=5\text{mA},$ $I_{rr}=0.1*I_R, R_L=100\Omega$	t_{rr}	-	1.0	-	nS

Device Marking

Item	Marking	Equivalent Circuit diagram
SD101AWS	S1	
SD101BWS	S2	
SD101CWS	S3	

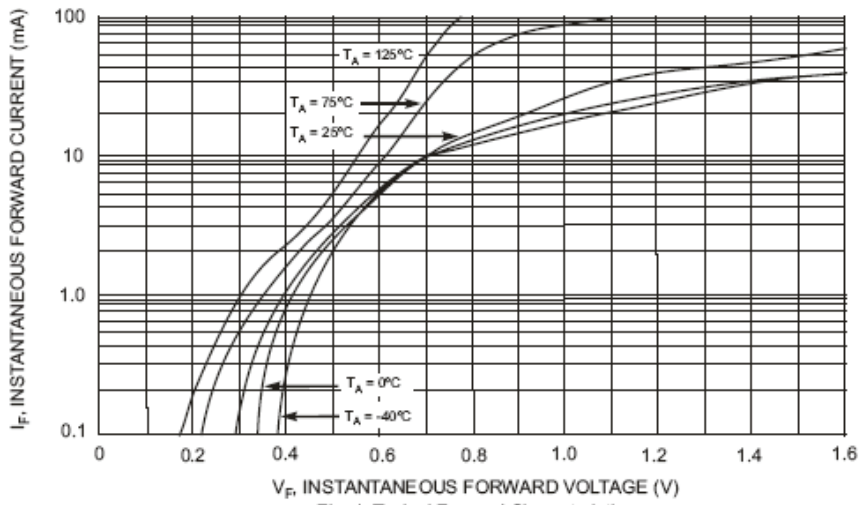


Fig. 1 Typical Forward Characteristics

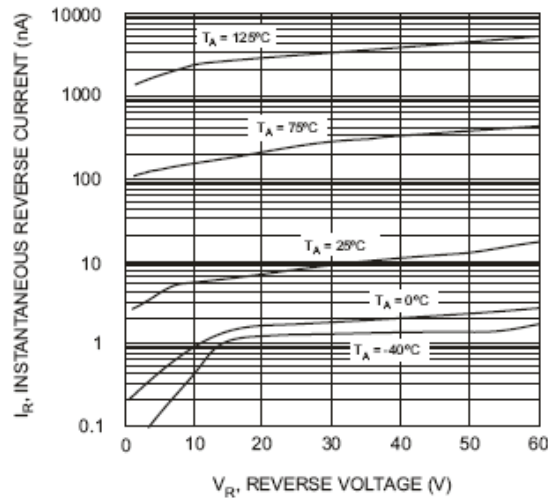


Fig. 2 Typical Reverse Characteristics

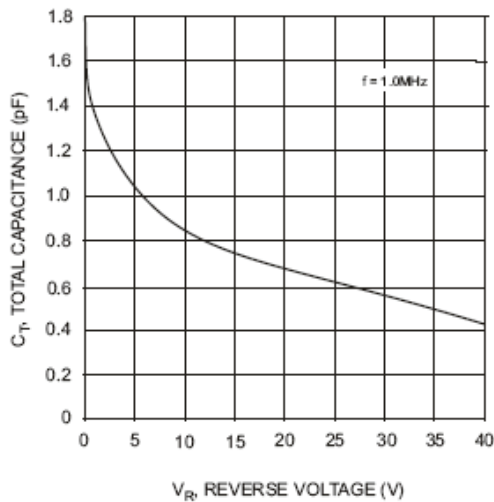


Fig. 3 Typical Capacitance

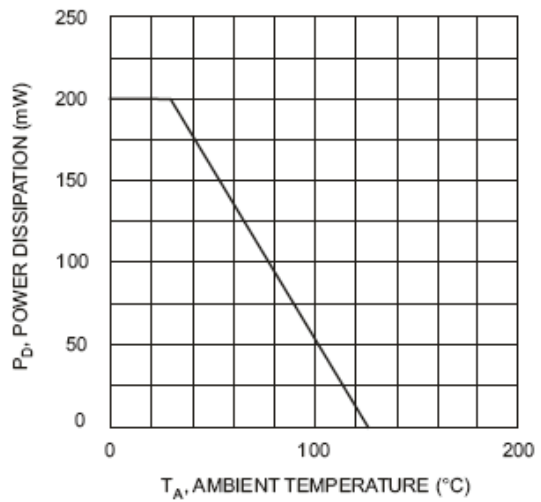


Fig. 4 Power Derating Curve, Total Package