

SOD-323 Surface Mount Schottky Barrier Rectifier

Features

- V_R 40V/30V/20V
- $I_{F(AV)}$ 0.35A
- For use in low voltage, high frequency inverters
- Free wheeling, and polarity protection applications

Applications

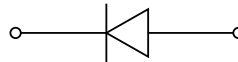
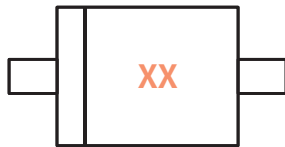
For use in low voltage high frequency circuit signals.

Mechanical Data

- Case: SOD-323
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Cathode line denotes the cathode end

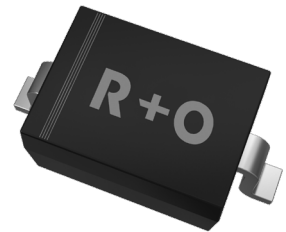
Function Diagram

Marking:
SD103AWS:S4
SD103BWS:S5
SD103CWS:S6



Reverse Voltage
40/30/20 V
Forward Current
0.35 Ampere

SOD-323



Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SD103AWS	SD103BWS	SD103CWS
Maximum repetitive peak reverse voltage	V_{RRM}	V	40	30	20
Maximum RMS Voltage	V_{RMS}	V	28	21	14
Maximum DC blocking voltage	V_{DC}	V	40	30	20
Maximum Average Forward Rectified Current	$I_{F(AV)}$	mA	350		
Non-repetitive Peak Forward Surge Current @t=8.3ms Half-sine wave	I_{FSM}	A	1.5		
Power Dissipation	P_d	mW	200		
Storage temperature	T_{stg}	°C	-55~+125		
Junction temperature	T_j	°C	-55 ~+150		
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	500		

● **Electrical Characteristics** (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	SD103AWS	SD103BWS	SD103CWS
Maximum instantaneous forward voltage	I _F =20mA	V _{F1}	V	0.37		
	I _F =200mA	V _{F2}		0.60		
Maximum Reverse current	SD103AWS	I _R	μA	5.0		
	SD103BWS			V _R =20V, T _A =25° C		
	SD103CWS			V _R =10V, T _A =25° C		
Typical junction capacitance	V _R =0V, f=1MHz	C _J	pF	120		

● **Ratings And Characteristics Curves** (Ta=25°C Unless otherwise specified)

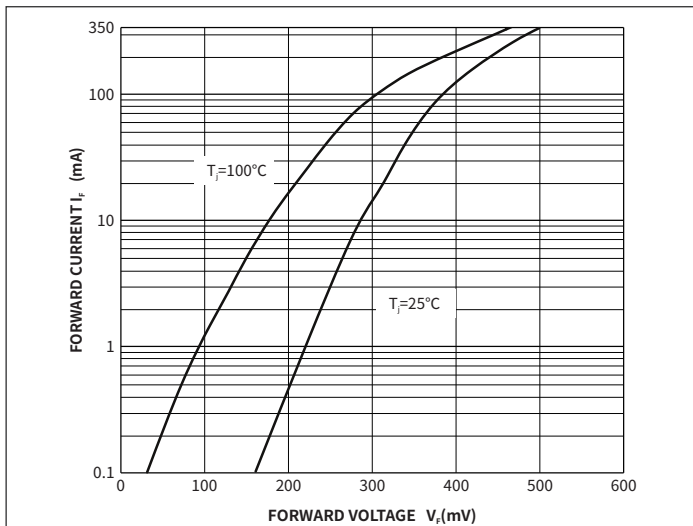


Fig.1 Typical Instantaneous Forward Characteristics

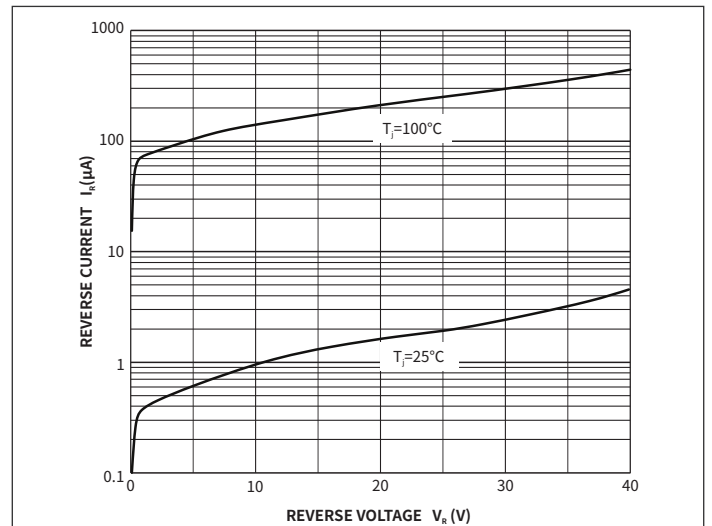


Fig.2 Typical Reverse Characteristics

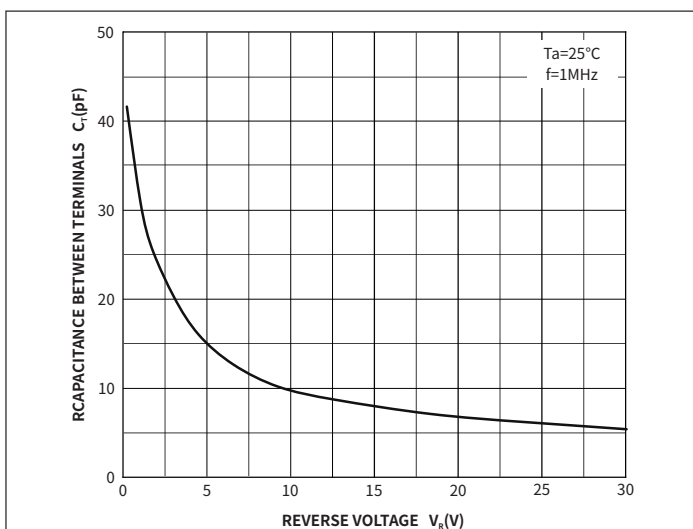


Fig.3 Typical Junction Capacitance

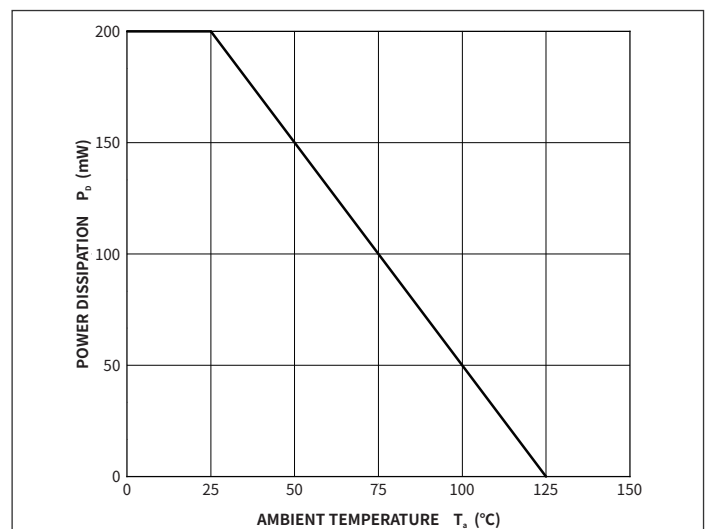


Fig.4 Power Derating Curve

SD103AWS THRU SD103CWS

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOD-323	R1	0.0048	3000	30000	120000	7"

Package Outline Dimensions (SOD-323)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.60	1.80	0.063	0.071
B	0.25	0.40	0.010	0.016
C	2.30	2.80	0.091	0.110
D	0.80	1.10	0.031	0.043
D ₁	0.80	0.90	0.031	0.035
E	1.20	1.40	0.047	0.055
F	0.08	0.18	0.003	0.007
L	0.475REF		0.019REF	
L ₁	0.25	0.40	0.010	0.016
H	-	0.14	-	0.006

Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
X	0.65	0.75	0.026	0.030
Y	0.65	0.75	0.026	0.030
Z	2.10	2.20	0.084	0.088

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