

SOD-323 Surface Mount Schottky Barrier Rectifier

● Features

- V_R 20V/30V/40V
- $I_{F(AV)}$ 1A
- For use in low voltage, high frequency inverters
- Free wheeling, and polarity protection applications
- Fast Switching Speed

● Applications

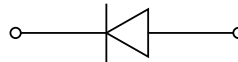
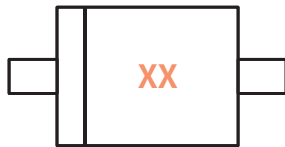
For use in low voltage high frequency circuit signals.

● 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

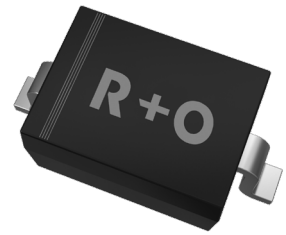
● Function Diagram

Marking:
B5817WS:SJ
B5818WS:SK
B5819WS:SL



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

SOD-323



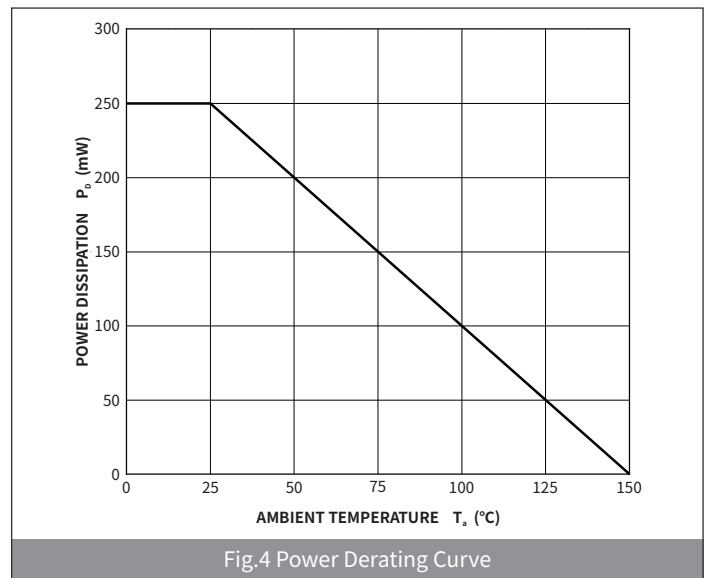
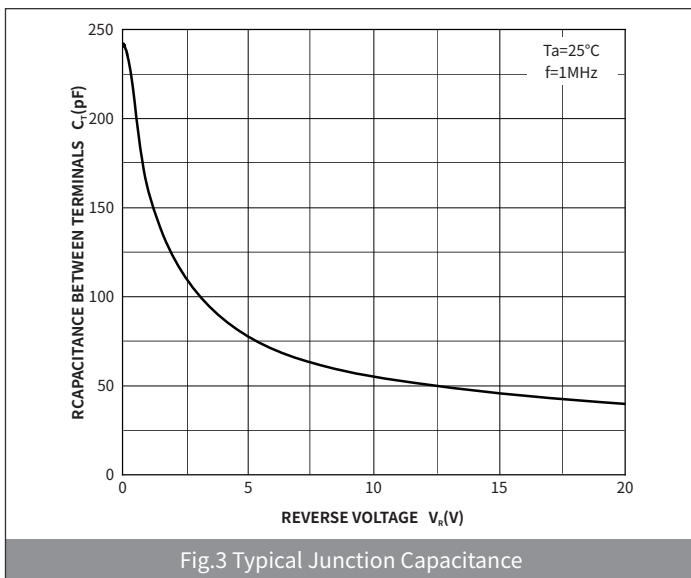
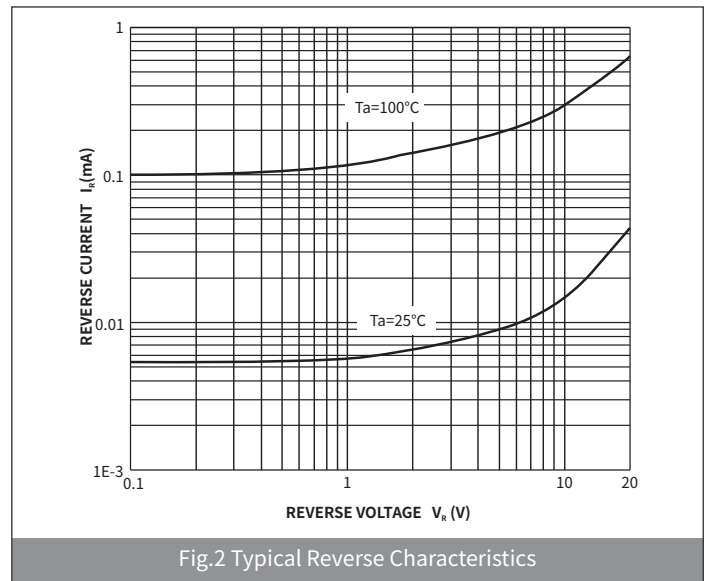
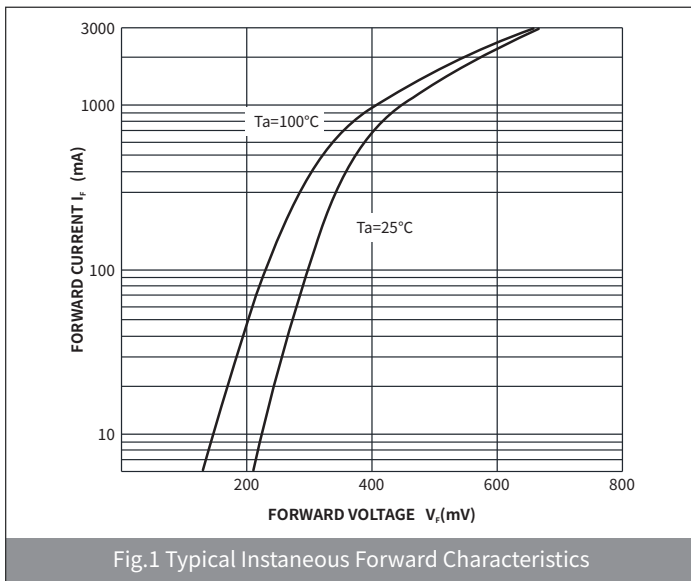
● Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	B5817WS	B5818WS	B5819WS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	20	30	40
Maximum RMS Voltage	V_{RMS}	V	14	21	28
Maximum DC Blocking Voltage	V_{DC}	V	20	30	40
Maximum Average Forward Rectified Current	$I_{F(AV)}$	A	1.0		
Non-repetitive Peak Forward Surge Current @t=8.3ms Half-sine wave	I_{FSM}	A	10		
Power Dissipation	P_d	mW	250		
Storage temperature	T_{stg}	°C	-55~+150		
Junction temperature	T_j	°C	-55 ~+150		
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	400		

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

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	B5817WS	B5818WS	B5819WS
Maximum instantaneous forward voltage	I _F =1.0A	V _{F1}	V	0.45	0.55	0.6
	I _F =3.0A	V _{F2}		0.75	0.875	0.9
Maximum DC reverse current at rated DC blocking voltage	V _R =V _{DC} , T _A =25°C	I _{R1}	mA	1.0		
Typical junction capacitance	V _R =4.0V, f=1MHz	C _J	pF	120		

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



B5817WS THRU B5819WS

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