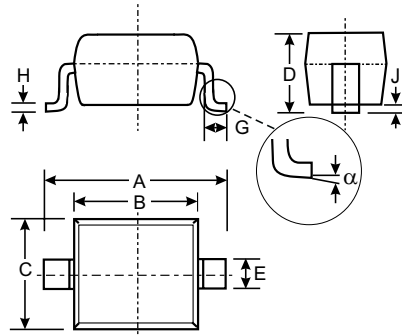


# B5817WS-B5819WS

## 1.0A Schottky Barrier Diode

### ■ Features

- For use in low voltage, high frequency inverters
- Free wheeling, and polarity protection applications.



SOD-323		
Dim	Min	Max
A	2.30	2.70
B	1.60	1.80
C	1.20	1.40
D	1.05 Typical	
E	0.25	0.35
G	0.20	0.40
H	0.10	0.15
J	0.05 Typical	
$\alpha$	0°	8°
All Dimensions in mm		

### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	B5817WS	B5818WS	B5819WS	Unit
Non-Repetitive Peak reverse voltage	$V_{RM}$	20	30	40	V
Peak repetitive Peak reverse voltage	$V_{RRM}$				
Working Peak Reverse Voltage	$V_{RWM}$	20	30	40	V
DC Blocking Voltage	$V_R$				
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	V
Average Rectified Output Current	$I_O$	1			A
Peak forward surge current @=8.3ms	$I_{FSM}$	25			A
Repetitive Peak Forward Current	$I_{FRM}$	625			mA
Power Dissipation	$P_d$	250			mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500			K/W
Storage temperature	$T_{STG}$	-55 to 150			$^\circ\text{C}$

### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Reverse breakdown voltage	B5817WS	$I_R = 1\text{mA}$	20			V
	B5818WS		30			
	B5819WS		40			
Reverse voltage leakage current	B5817WS	$V_R = 20\text{V}$ $V_R = 30\text{V}$ $V_R = 40\text{V}$			1	mA
	B5818WS					
	B5819WS					
Forward voltage	B5817WS	$V_F$	$I_F = 1\text{A}$		0.45	V
			$I_F = 3\text{A}$		0.75	
	B5818WS		$I_F = 1\text{A}$		0.55	V
			$I_F = 3\text{A}$		0.875	
	B5819WS		$I_F = 1\text{A}$		0.6	V
			$I_F = 3\text{A}$		0.9	
Diode capacitance	$C_D$	$V_R = 4\text{V}, f = 1\text{MHz}$			120	pF

### ■ Marking

NO.	B5817WS	B5818WS	B5819WS
Marking	SJ	SK	SL

■ Typical Characteristics

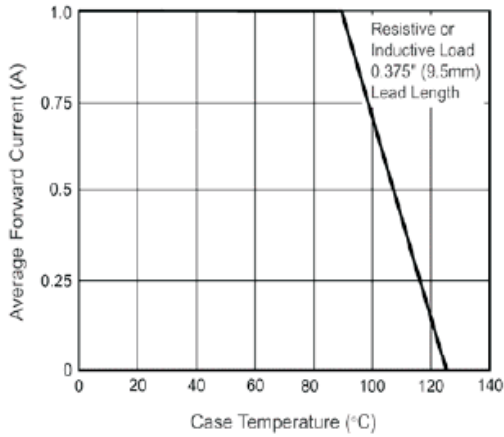


Fig.1 Forward Current Derating Curve

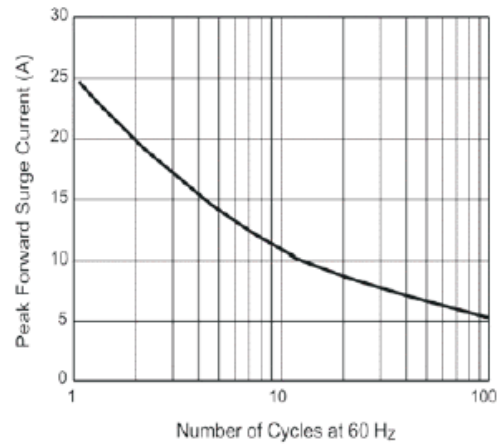


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

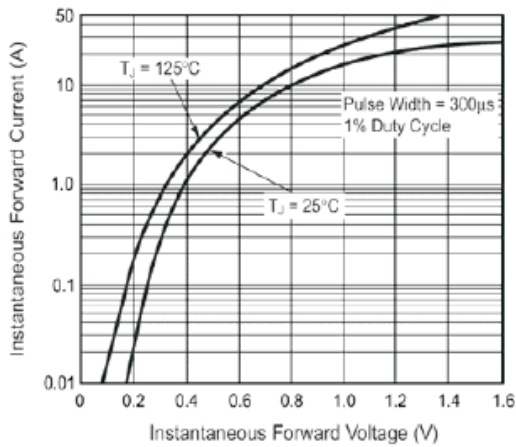


Fig.3 Typical Instantaneous Forward Characteristics

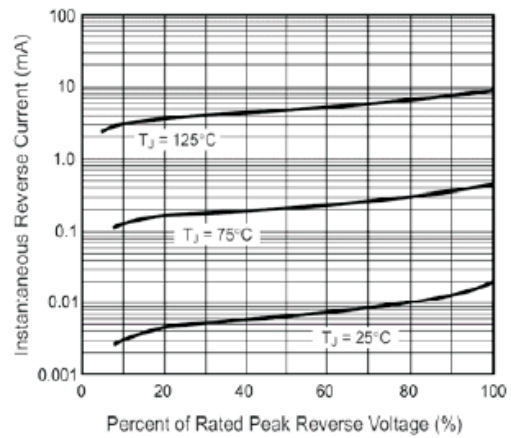


Fig.4 Typical Reverse Characteristics

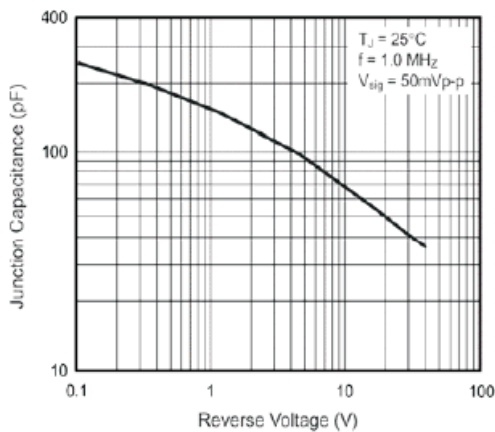


Fig.5 Typical Junction Capacitance

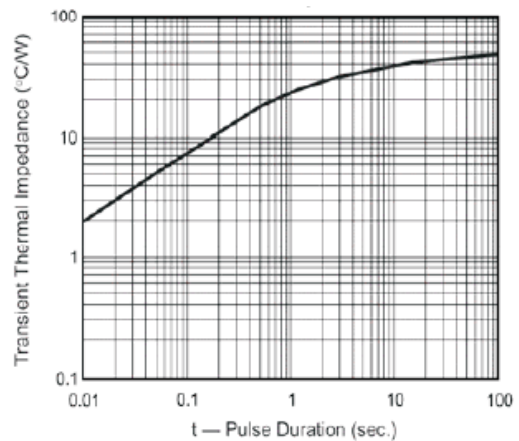


Fig.6 Typical Transient Thermal Impedance