

Schottky Barrier Diode

B5817WS-B5819WS

FEATURES

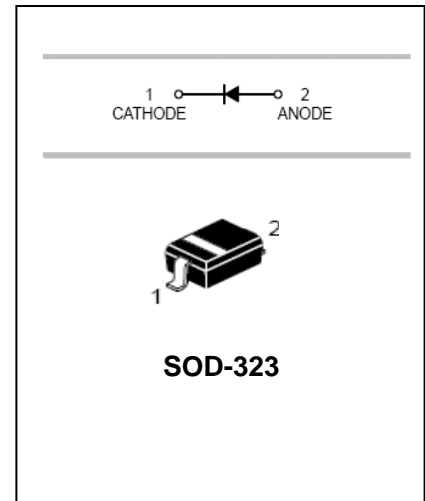
- Extremely low V_F
- Low stored charge, majority carrier conduction
- Low power loss/high efficient



Lead-free

APPLICATIONS

- For Use In Low Voltage, High Frequency Inverters
- Free Wheeling, And Polarity Protection Applications



ORDERING INFORMATION

Type No.	Marking	Package Code
B5817WS	SJ	SOD-323
B5818WS	SK	SOD-323
B5819WS	SL	SOD-323

MAXIMUM RATING @ $T_a=25^{\circ}\text{C}$ unless otherwise specified

Parameter	symbol	B5817WS	B5818WS	B5819WS	Unit
Non-Repetitive Peak reverse voltage	V_{RM}	20	30	40	V
Peak repetitive Peak reverse voltage Working Peak Reverse voltage DC Reverse Voltage	V_{RRM} V_{RWM} V_R	20	30	40	V
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}	20			A
Power Dissipation	P_d	235			mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	426			$^{\circ}\text{C}/\text{W}$
Storage temperature	T_{STG}	-55 to +150			$^{\circ}\text{C}$



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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test Condition	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)}$	$I_R=1mA$			
		B5817WS	20		V
		B5818WS	30		
		B5819WS	40		
Reverse voltage leakage current	I_R	$V_R=20V$			
		B5817WS		1	mA
		B5818WS			
		$V_R=30V$			
		B5818WS			
		$V_R=40V$			
		B5819WS			
Forward voltage	V_F	B5817WS	$I_F=1A$	0.45	V
			$I_F=3A$	0.75	
		B5818WS	$I_F=1A$	0.55	
			$I_F=3A$	0.875	
		B5819WS	$I_F=1A$	0.6	
			$I_F=3A$	0.9	
Diode capacitance	C_D	$V_R=4V, f=1MHz$		120	pF

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

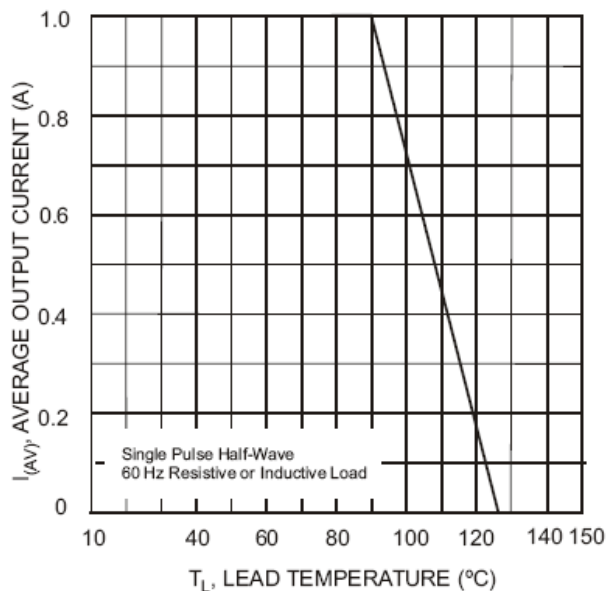


Fig. 1 Forward Current Derating Curve

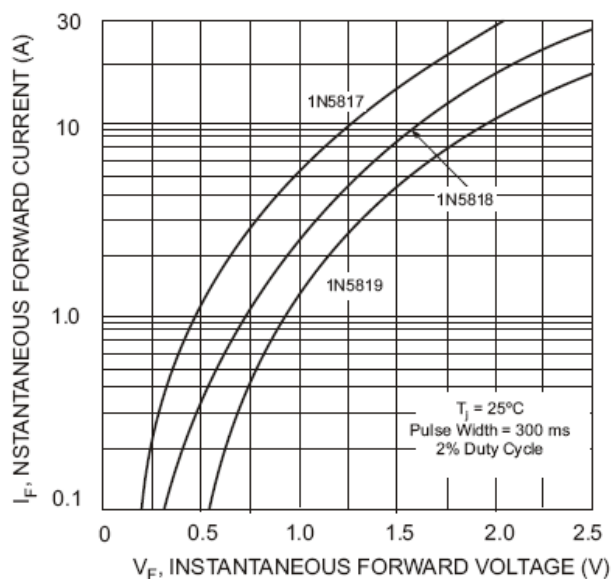


Fig. 2 Typical Forward Characteristics

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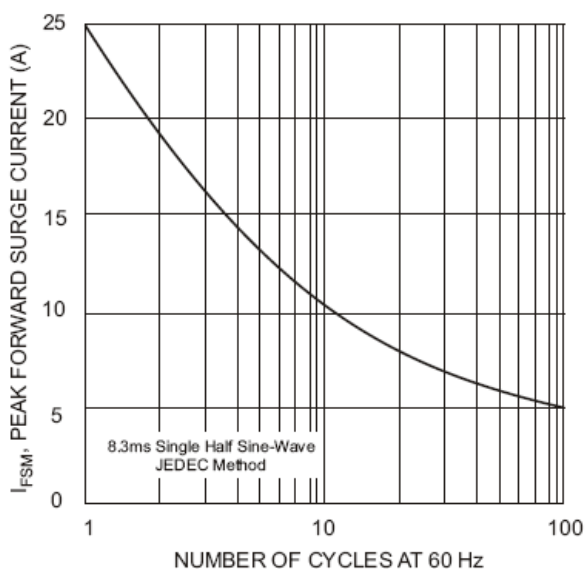


Fig. 3 Maximum Non-Repetitive Peak Fwd Surge Current

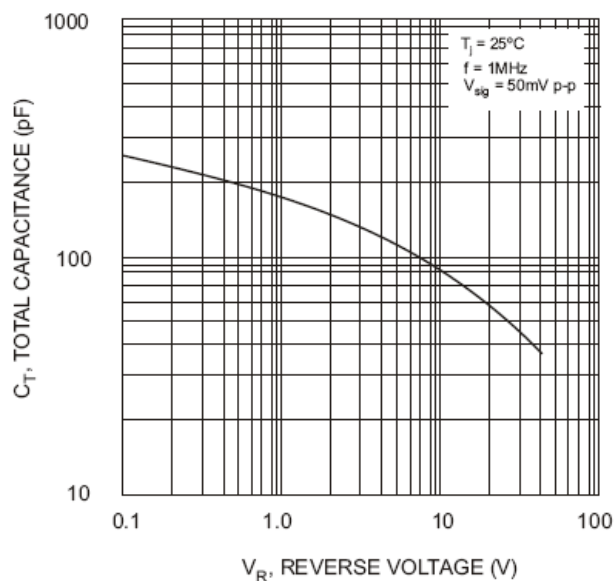
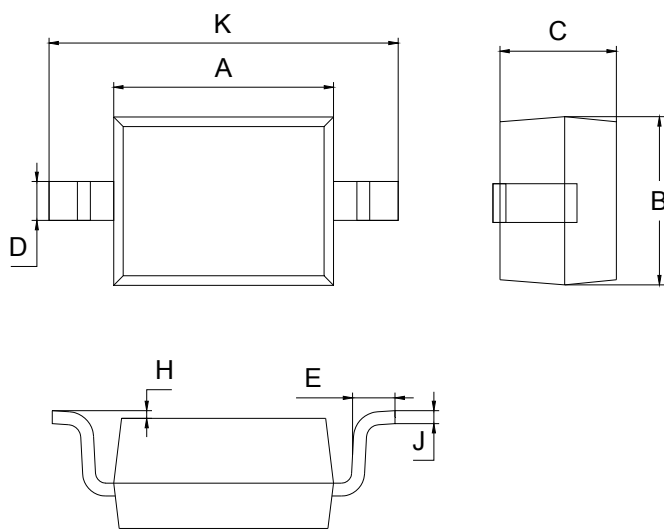


Fig. 4 Typical Total Capacitance

PACKAGE OUTLINE

Plastic surface mounted package

SOD-323



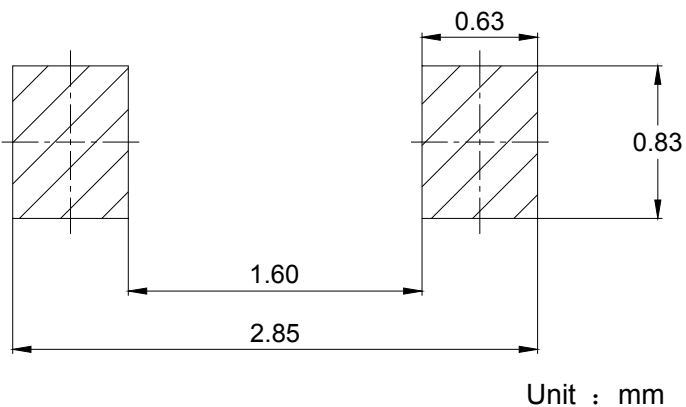
SOD-323		
Dim	Min	Max
A	1.60	1.80
B	1.20	1.40
C	0.9 Max	
D	0.30 Typical	
E	0.22	0.42
H	0.02	0.1
J	0.1 Typical	
K	2.55	2.75
All Dimensions in mm		



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SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
B5817WS-B5819WS	SOD-323	3000/Tape&Reel