

# B5817WS Thru B5819WS

## Features

- Halogen free available upon request by adding suffix "-HF"
- Guard Ring Protection
- Low Forward Voltage Drop
- For Use in Low Voltage, High Frequency Inverters
- High Surge Current Capability
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant("P" Suffix designates RoHS Compliant. See ordering information)

## Maximum Ratings

- Operating Temperature: -65°C to +125°C
- Storage Temperature: -65°C to +150°C
- Maximum Thermal Resistance; 500°C/W Junction To Ambient

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
B5817WS	SJ	20V	14V	20V
B5818WS	SK	30V	21V	30V
B5819WS	SL	40V	28V	40V

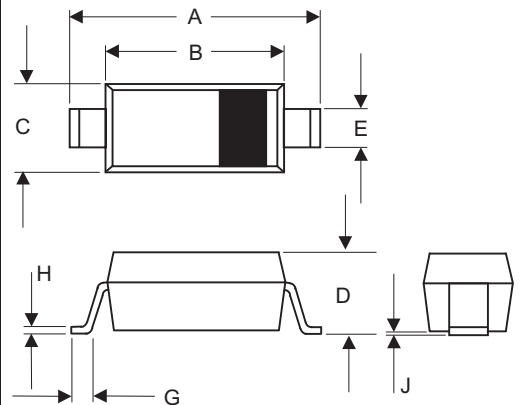
## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	$T_c = 90^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	10A	8.3ms, half sine
Power Dissipation	$P_d$	250mW	
Maximum Instantaneous Forward Voltage	$V_F$	0.45V	$I_{FM} = 1.0A;$ $T_J = 25^\circ\text{C}$ (Note 1)
		0.55V	
		0.60V	
Reverse leakage current	$I_R$	0.75V	$I_{FM} = 3A;$ $T_J = 25^\circ\text{C}$ (Note 1)
		0.875V	
		0.90V	
Typical junction capacitance	$C_J$	200µA(Max) 30µA(Typ.)	$V_R=20V, T_a=25^\circ\text{C}$
		40µA(Max) 4µA(Typ.)	$V_R=30V, T_a=25^\circ\text{C}$
		40µA(Max) 7µA(Typ.)	$V_R=40V, T_a=25^\circ\text{C}$
Typical junction capacitance	$C_J$	120pF	Measured at 1.0MHz, $V_R=4.0V$

Notes: 1. Pulse Test: Pulse Width 300µsec, Duty Cycle 2%

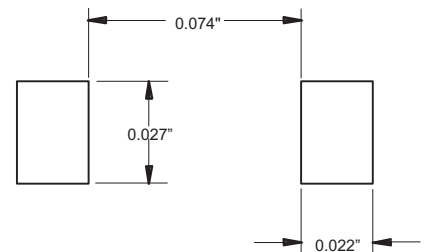
## 1 Amp Schottky Barrier Rectifier 20 - 40 Volts

### SOD-323



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.090	.107	2.30	2.70	
B	.063	.071	1.60	1.80	
C	.045	.053	1.15	1.35	
D	.031	.045	0.80	1.15	
E	.010	.016	0.25	0.40	
G	.004	.018	0.10	0.45	
H	.004	.010	0.10	0.25	
J	----	.006	----	0.15	

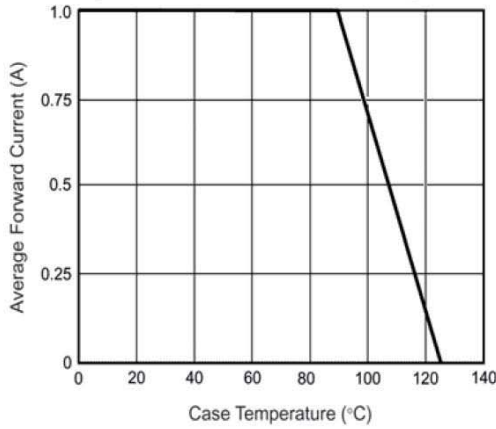
### SUGGESTED SOLDER PAD LAYOUT



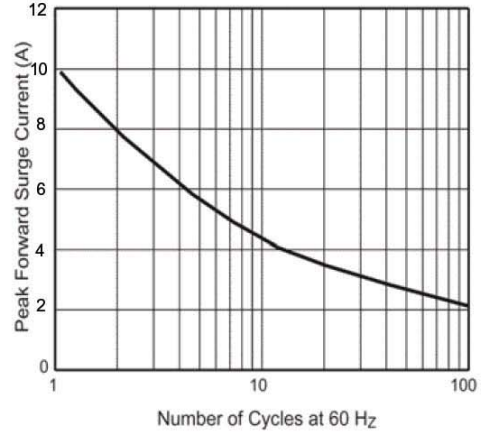
# B5817WS-B5819WS

## Typical Characteristics

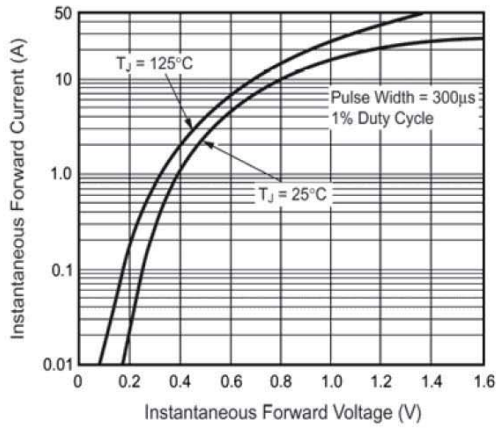
**Fig. 1 - Forward Current Derating Curve**



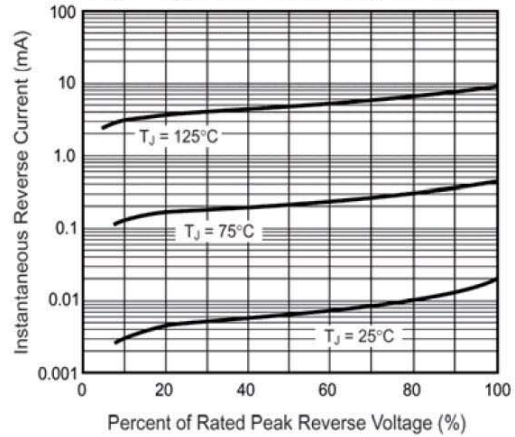
**Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current**



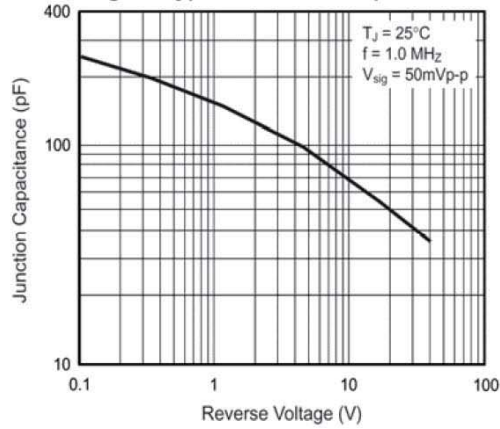
**Fig. 3 - Typical Instantaneous Forward Characteristics**



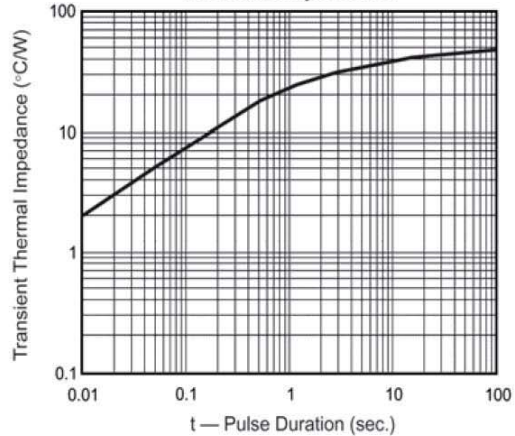
**Fig. 4 - Typical Reverse Characteristics**



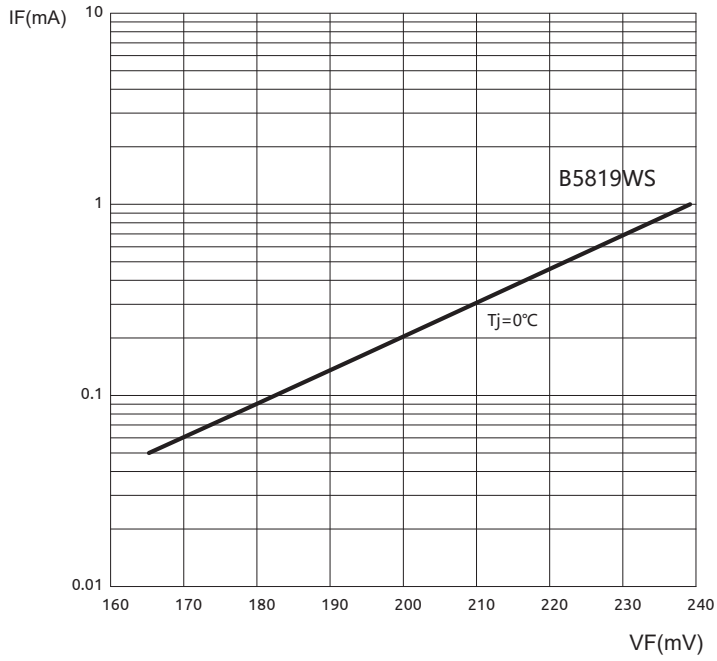
**Fig. 5 - Typical Junction Capacitance**



**Fig. 6 - Typical Transient Thermal Impedance**



**Fig7. Forward Characteristics**





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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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