



## B5817W Thru B5819W

### 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
- Power Dissipation: 250mW
- 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; 500K/W Junction To Ambient

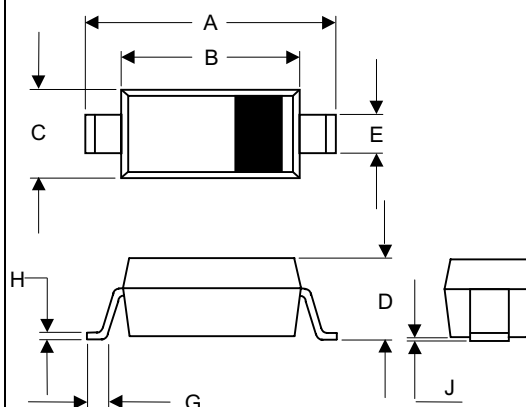
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
B5817W	SJ	20V	14V	20V
B5818W	SK	30V	21V	30V
B5819W	SL	40V	28V	40V

### Electrical Characteristics @ 25°C Unless Otherwise Specified

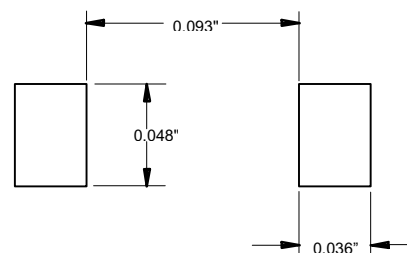
Average Forward Current	$I_{F(AV)}$	1.0A	$T_c = 90^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	10A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	0.45V	$I_{FM} = 1.0A;$ $T_J = 25^\circ\text{C}$
		0.55V	
		0.60V	
B5817W B5818W B5819W		0.75V 0.875V 0.90V	$I_{FM} = 3A;$ $T_J = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	1mA	$T_A = 25^\circ\text{C}$
Typical junction capacitance	$C_J$	120pF	Measured at 1.0MHz, $V_R=4.0V$

## 1 Amp Schottky Barrier Rectifier 20 - 40 Volts

### SOD-123



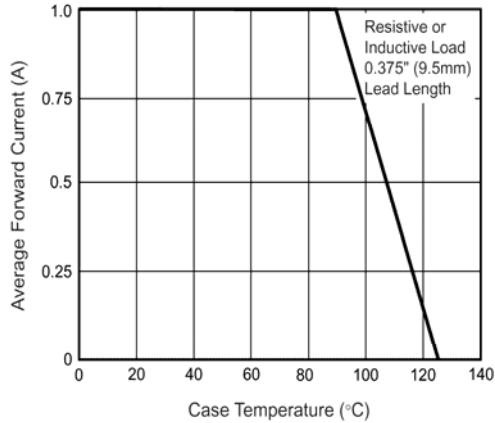
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	----	.053	----	1.35	
E	.012	.031	0.30	.78	
G	.006	----	0.15	----	
H	----	.01	----	.25	
J	----	.006	----	.15	



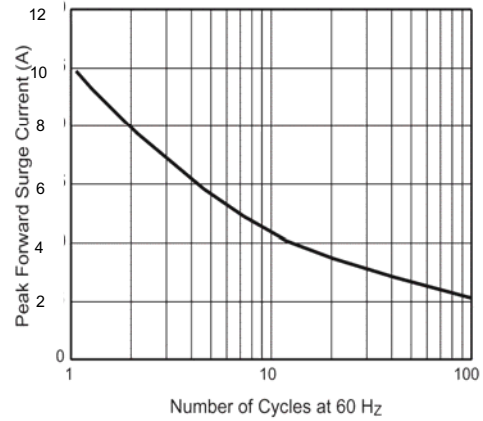
# B5817W-B5819W

## Typical Characteristics

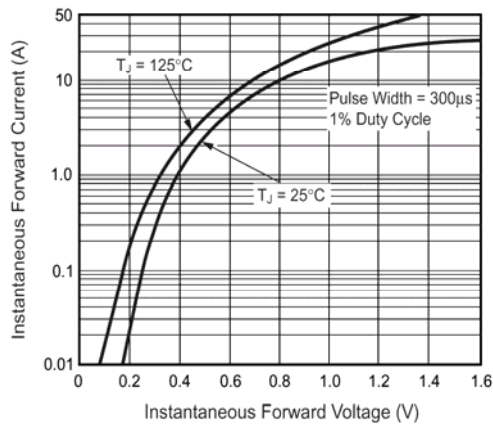
**Fig. 1 - Forward Current Derating Curve**



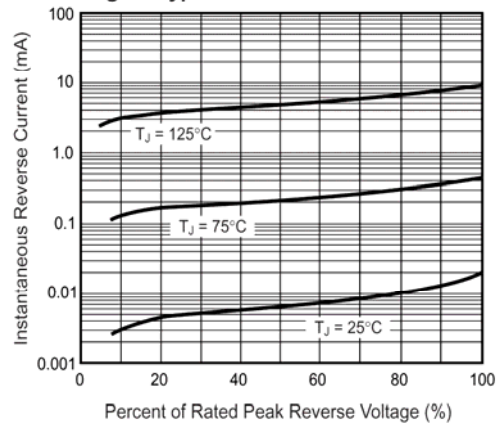
**Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current**



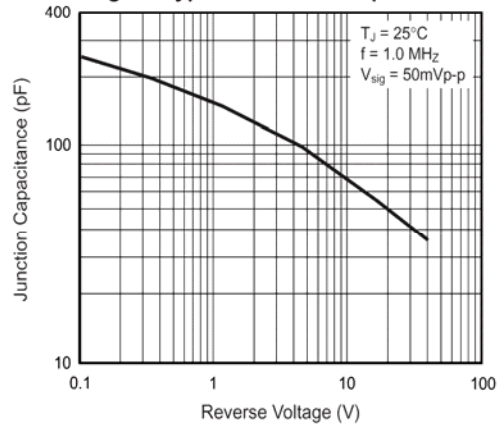
**Fig. 3 - Typical Instantaneous Forward Characteristics**



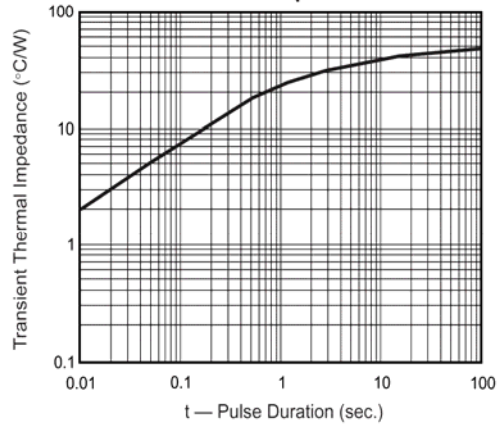
**Fig. 4 - Typical Reverse Characteristics**



**Fig. 5 - Typical Junction Capacitance**



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



## Ordering Information :

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

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