

**Features**

- Halogen Free. "Green" Device (Note 1)
- Guard Ring Protection
- Low Forward Voltage Drop
- For Use in Low Voltage, High Frequency Inverters
- Power Dissipation:500mW
- 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 Junction Temperature Range: -65°C to +125°C
- Storage Temperature Range: -65°C to +150°C
- Maximum Thermal Resistance: 200°C/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**

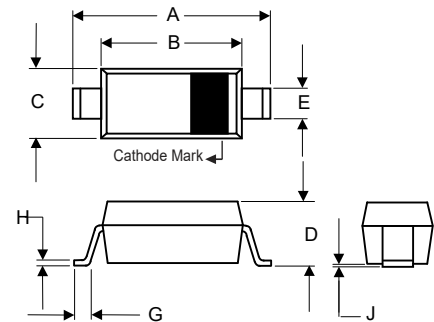
Average Forward Current	$I_{F(AV)}$	1.0A	$T_C=90^\circ C$
Peak Forward Surge Current	$I_{FSM}$	10A	8.3ms Half Sine
Maximum Instantaneous Forward Voltage	$V_F$	0.45V	$I_{FM}=1.0A;$ $T_J=25^\circ C$ (Note 2)
		0.55V	
		0.60V	$I_{FM}=3A;$ $T_J=25^\circ C$ (Note 2)
		0.75V	
B5817W	0.875V		
B5818W	0.90V		
B5819W			
Reverse leakage Current	$I_R$	200µA(Max) 8µA(Typ.)	$V_R=20V, T_A=25^\circ C$
		40µA(Max) 4µA(Typ.)	$V_R=30V, T_A=25^\circ C$
		40µA(Max) 7µA(Typ.)	$V_R=40V, T_A=25^\circ C$
Typical Junction Capacitance	$C_J$	120pF	Measured at 1.0MHz, $V_R=4.0V$

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

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

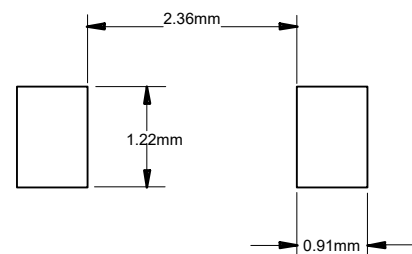
**1 Amp Schottky Barrier Rectifier  
20 - 40 Volts**

**SOD-123**



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.140	0.152	3.55	3.85	
B	0.100	0.112	2.55	2.85	
C	0.055	0.071	1.40	1.80	
D	----	0.053	----	1.35	
E	0.018	0.026	0.45	0.65	
G	0.006	----	0.15	----	
H	----	0.010	----	0.25	
J	----	0.006	----	0.15	

**Suggested Solder Pad Layout**



**Curve Characteristics**

Fig. 1 - Forward Characteristics

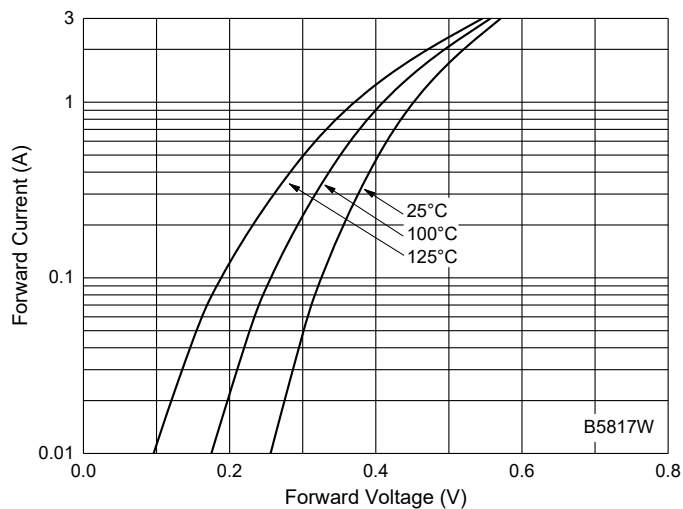


Fig. 2 - Forward Characteristics

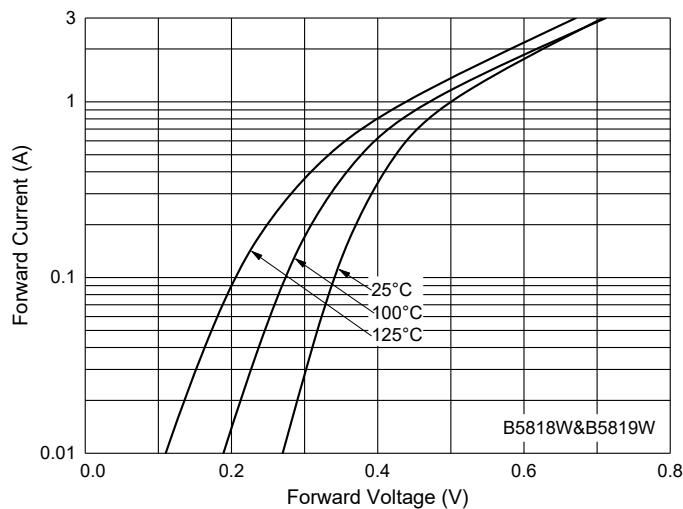


Fig. 3 - Reverse Characteristics

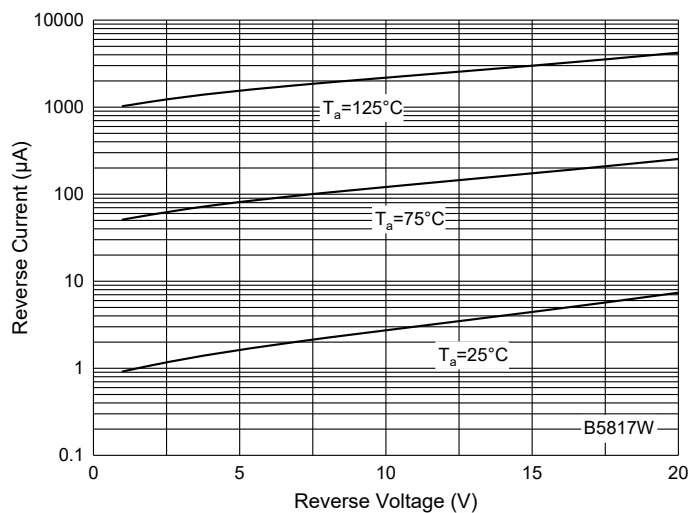


Fig. 4 - Reverse Characteristics

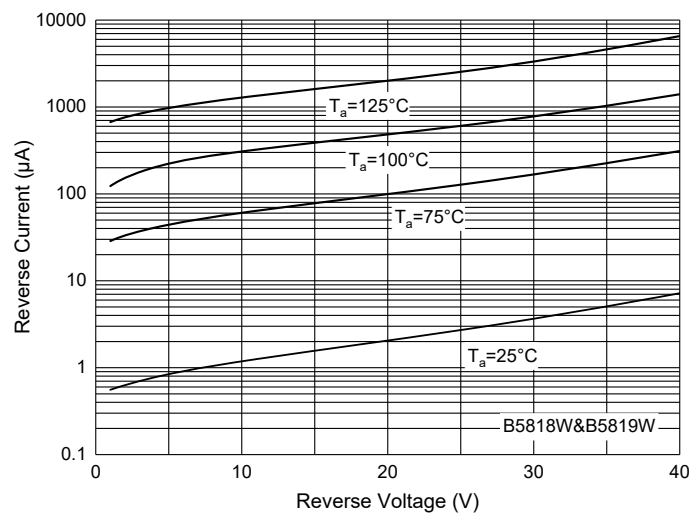
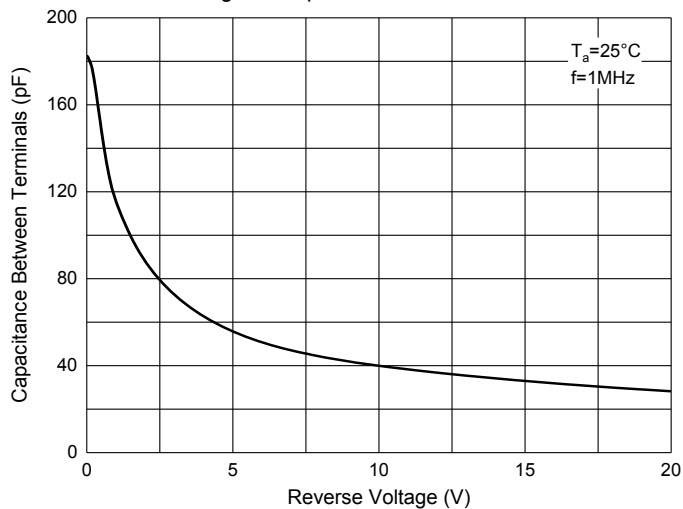


Fig. 5 - Capacitance Characteristics



## Ordering Information

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

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