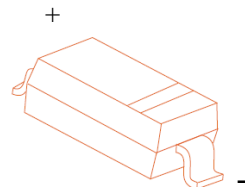


**B5817W-5819W** SCHOTTKY BARRIER DIODE**FEATURES**

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

**SOD-123****Maximum Ratings and Electrical Characteristics, Single Diode @T<sub>A</sub>=25°C**

Parameter	Symbol	B5817W	B5818W	B5819W	Unit
Non-Repetitive Peak reverse voltage	$V_{RM}$	20	30	40	V
Peak repetitive Peak reverse voltage Working Peak Reverse Voltage DC Blocking 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	$I_{FSM}$	9			A
Repetitive Peak Forward Current	$I_{FRM}$	1.5			A
Power Dissipation	$P_d$	500			mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	250			°C/W
Storage temperature	$T_{STG}$	-65~+150			°C

**ELECTRICAL CHARACTERISTICS (T<sub>amb</sub>=25°C unless otherwise specified)**

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)}$	$I_R=1mA$ B5817W B5818W B5819W	20 30 40		V
Reverse voltage leakage current	$I_R$	$V_R=20V$ $V_R=30V$ $V_R=40V$ B5817W B5818W B5819W		1	mA
Forward voltage	$V_F$	B5817W $I_F=1A$ $I_F=3A$		0.45 0.75	V
		B5818W $I_F=1A$ $I_F=3A$		0.55 0.875	V
		B5819W $I_F=1A$ $I_F=3A$		0.6 0.9	V
Diode capacitance	$C_D$	$V_R=4V, f=1MHz$		120	pF

Fig. 1 - Forward Current Derating Curve

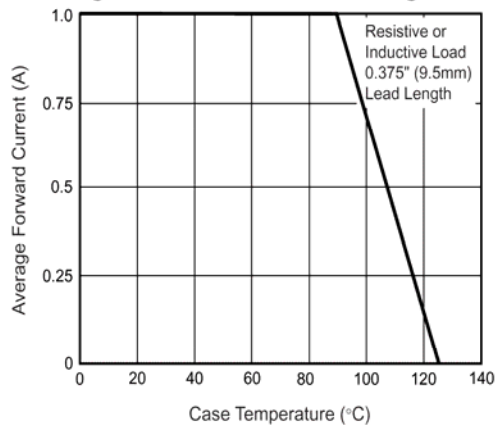


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

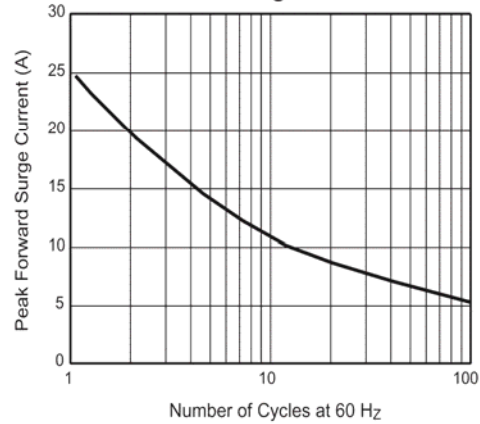


Fig. 3 - Typical Instantaneous Forward Characteristics

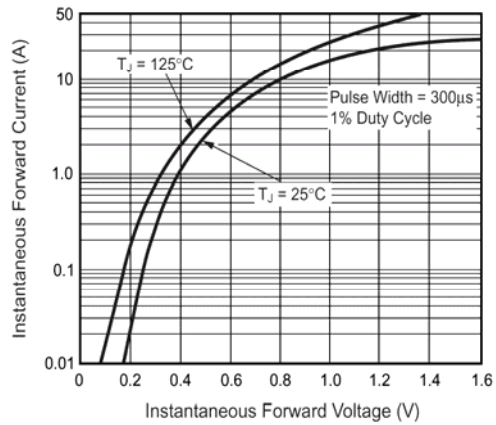


Fig. 4 - Typical Reverse Characteristics

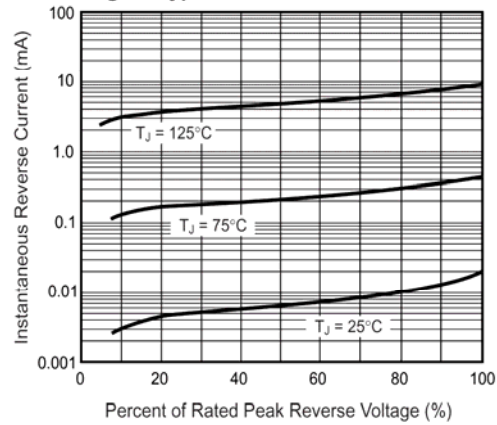


Fig. 5 - Typical Junction Capacitance

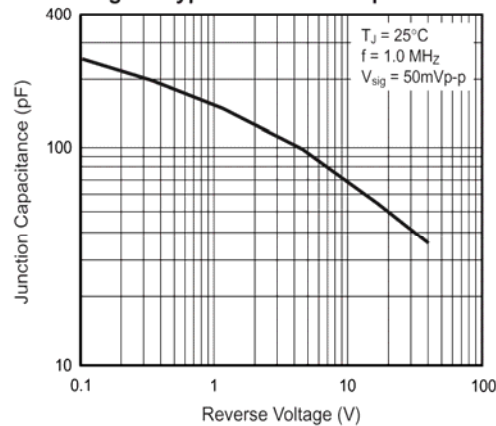


Fig. 6 - Typical Transient Thermal Impedance

