

B5817W-5819W SCHOTTKY BARRIER DIODE

FEATURES

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

MARKING: B5817WS: SJ
 B5818WS:SK
 B5819WS: SL


Maximum Ratings and Electrical Characteristics, Single Diode @T_A=25°C

Parameter	Symbol	B5817WS	B5818WS	B5819WS	Unit
Non-Repetitive Peak reverse voltage	V _{RM}	20	30	40	V
Peak repetitive Peak reverse voltage	V _{RPM}	20	30	40	V
Working Peak Reverse Voltage	V _{RWM}				
DC Blocking Voltage	V _R				
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	250			mW
Thermal Resistance Junction to Ambient	R _{θJA}	500			°C/W
Storage temperature	T _{STG}	-65~+150			°C

ELECTRICAL CHARACTERISTICS (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	V _(BR)	I _R = 1mA			V
		B5817WS	20		
		B5818WS B5819WS	30 40		
Reverse voltage leakage current	I _R	V _R =20V		1	mA
		V _R =30V			
		V _R =40V			
Forward voltage	V _F	B5817WS	I _F =1A I _F =3A	0.45	V
				0.75	
		B5818WS	I _F =1A I _F =3A	0.55	V
				0.875	
		B5819WS	I _F =1A I _F =3A	0.6	V
				0.9	
Diode capacitance	C _D	V _R =4V, f=1MHz		120	pF

Typical Characteristics

B5817W-5819W

Fig. 1 - Forward Current Derating Curve

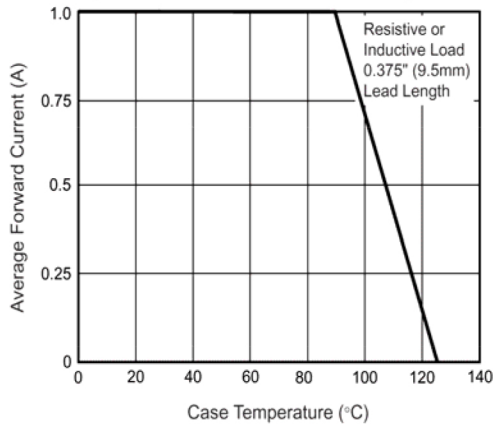


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

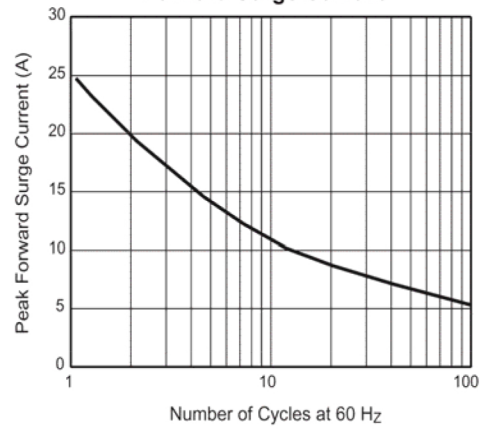


Fig. 3 - Typical Instantaneous Forward Characteristics

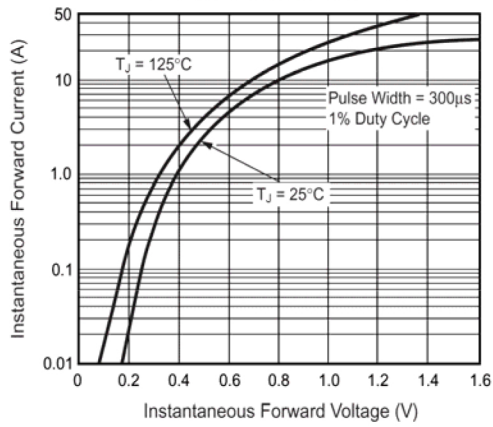


Fig. 4 - Typical Reverse Characteristics

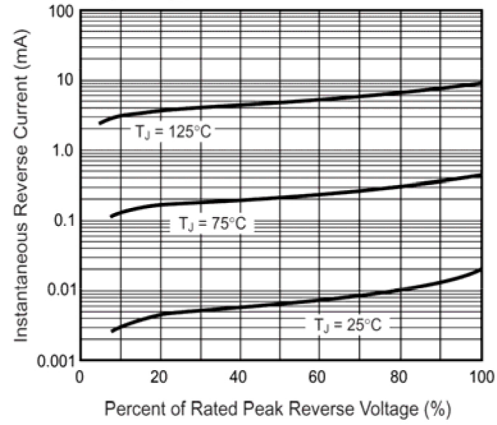


Fig. 5 - Typical Junction Capacitance

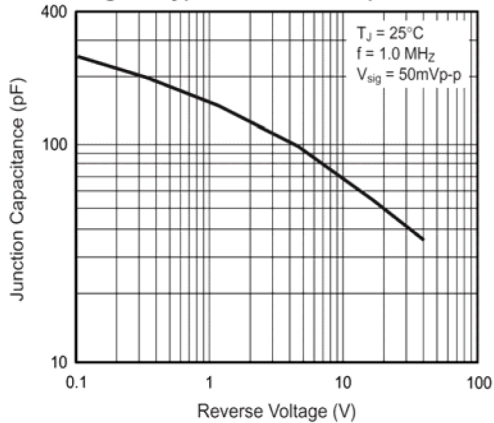


Fig. 6 - Typical Transient Thermal Impedance

