

SOD-323 Plastic-Encapsulate Diode

B5817WS-5819WS SCHOTTKY BARRIER DIODE

FEATURES

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



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 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}	25			A
Repetitive Peak Forward Current	I _{FRM}	625			mA
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 B5817WS B5818WS B5819WS	20 30 40		V
Reverse voltage leakage current	I _R	V _R =20V B5817WS V _R =30V B5818WS V _R =40V B5819WS		1	mA
Forward voltage	V _F	B5817WS I _F =1A		0.45	V
		I _F =3A		0.75	
		B5818WS I _F =1A		0.55	V
		I _F =3A		0.875	
		B5819WS I _F =1A		0.6	V
		I _F =3A		0.9	
Diode capacitance	C _D	V _R =4V, f=1MHz		120	pF



Typical Characteristics

Fig. 1 - Forward Current Derating Curve

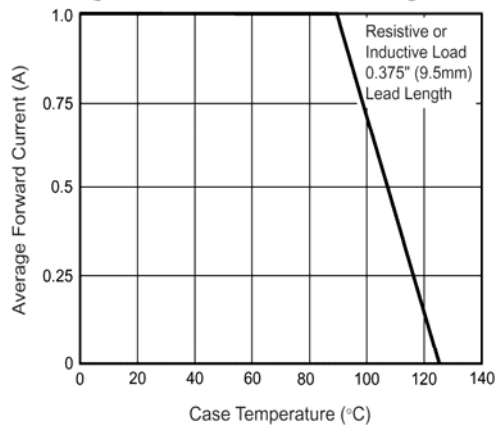


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

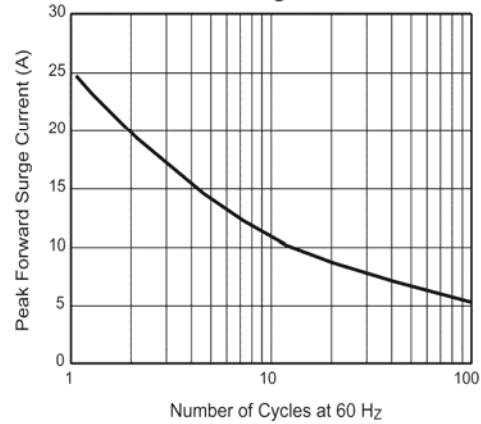


Fig. 3 - Typical Instantaneous Forward Characteristics

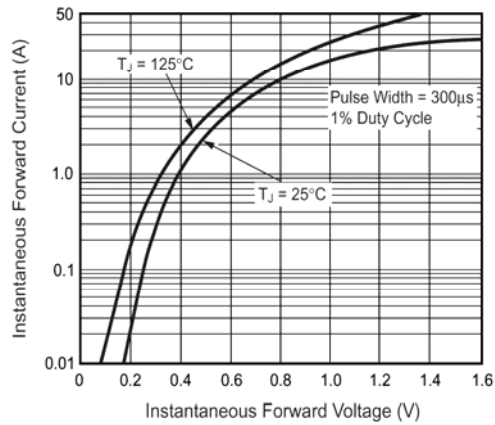


Fig. 4 - Typical Reverse Characteristics

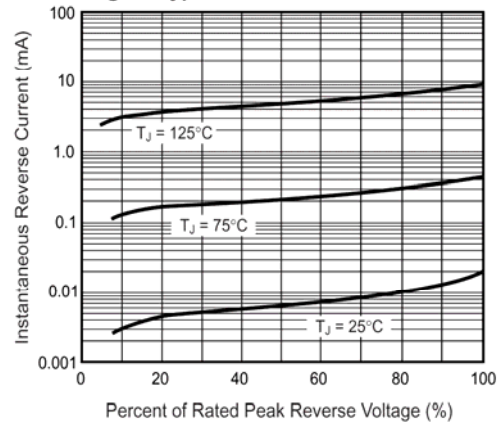


Fig. 5 - Typical Junction Capacitance

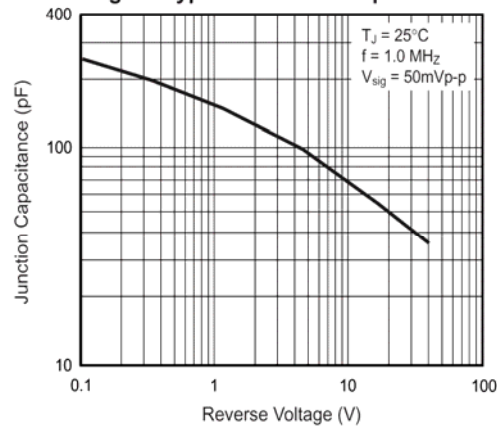


Fig. 6 - Typical Transient Thermal Impedance

