

SOD-123 Plastic-Encapsulate Diode

B5817W-5819W 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	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 @t=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			K/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 B5817W B5818W B5819W	20 30 40		V
Reverse voltage leakage current	I _R	V _R =20V B5817W V _R =30V B5818W V _R =40V 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



Typical Characteristics

B5817-5819W

Fig. 1 - Forward Current Derating Curve

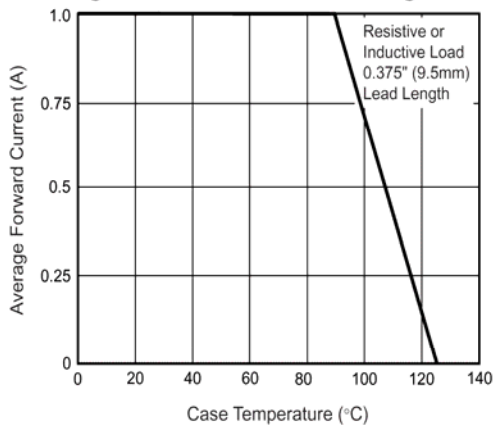


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

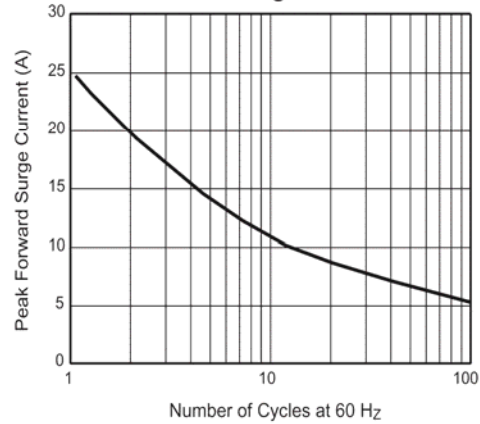


Fig. 3 - Typical Instantaneous Forward Characteristics

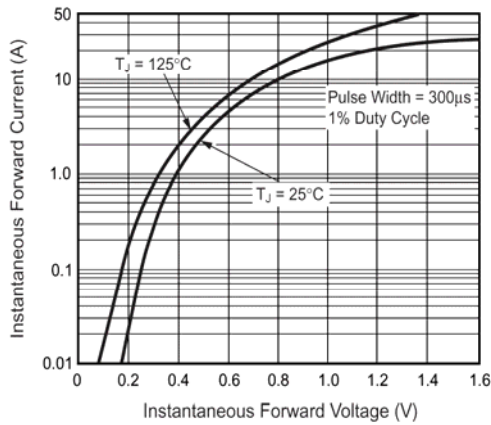


Fig. 4 - Typical Reverse Characteristics

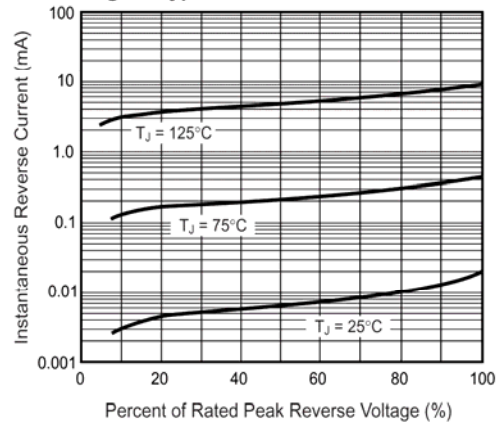


Fig. 5 - Typical Junction Capacitance

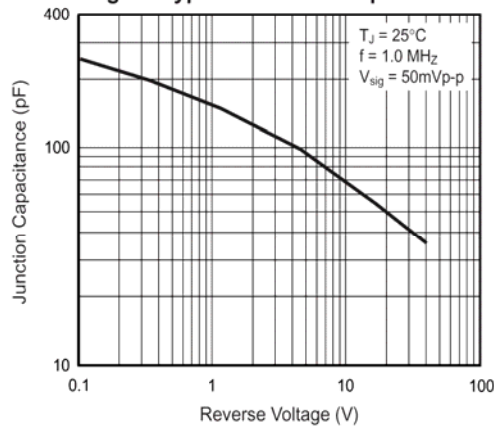


Fig. 6 - Typical Transient Thermal Impedance

