

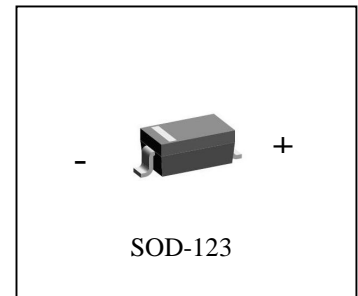
SCHOTTKY BARRIER DIODE

B5817W

FEATURES

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

MARKING: SJ



MAXIMUM RATINGS (TA=25 °C unless otherwise noted)

Parameter	Symbol	Value	Units
Non-Repetitive Peak reverse voltage	V_{RM}	20	V
Peak Repetitive Peak reverse voltage	V_{RRM}	20	V
Working Peak Reverse Voltage	V_{RWM}	20	V
DC Blocking	V_R	20	V
RMS Reverse Voltage	$R(RMS)$	14	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 (Tamb=25 °C unless otherwise specified)

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

B5817W Typical Characteristics

Fig. 1 - Forward Current Derating Curve

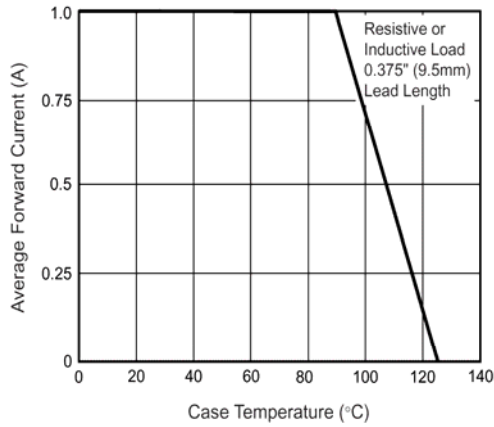


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

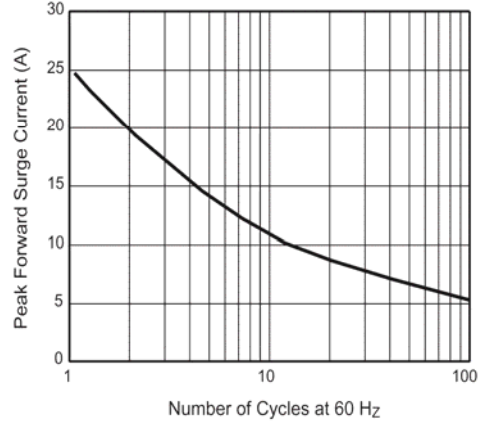


Fig. 3 - Typical Instantaneous Forward Characteristics

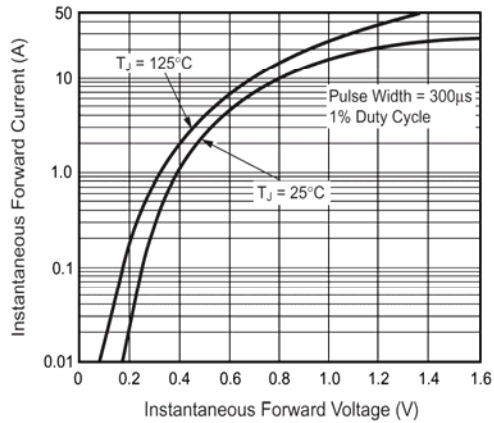


Fig. 4 - Typical Reverse Characteristics

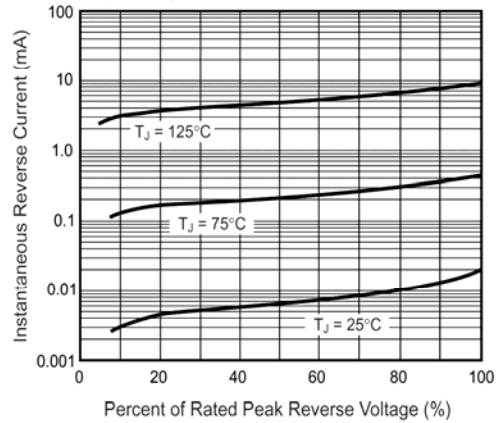


Fig. 5 - Typical Junction Capacitance

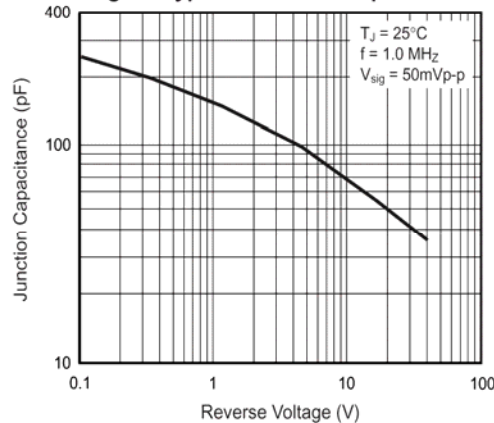


Fig. 6 - Typical Transient Thermal Impedance

