

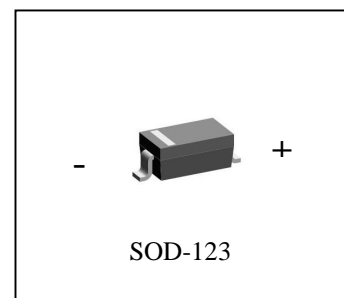
SCHOTTKY BARRIER DIODE

**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)

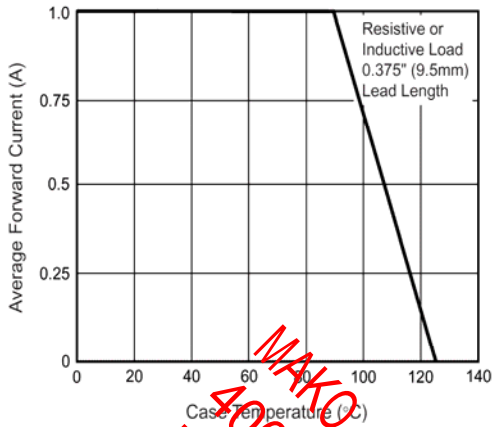
Parameter	Symbol	Value	Units
Non-Repetitive Peak reverse voltage	$V_{RM}$	20	V
Peak Repetitive Peak reverse voltage	$V_{RRM}$	20	V
Working Peak Reverse Voltage	$V_{RWM}$	20	V
DC Blocking	$V_R$	20	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	V
Average Rectified Output Current	$I_O$	1	A
Peak forward surge current @=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)

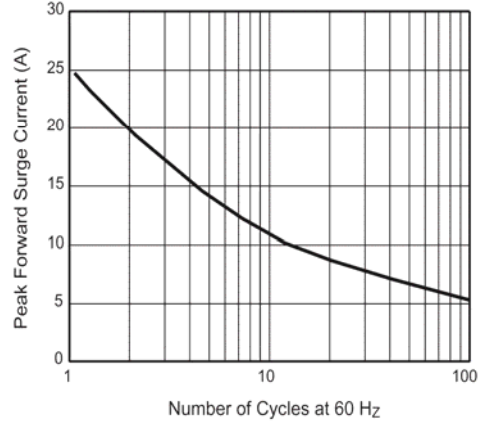
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)}$	$I_R = 1mA$	20		V
Reverse voltage leakage current	$I_R$	$V_R = 20V$		1	mA
Forward voltage	$V_F$	$I_F = 1A$		0.45	V
		$I_F = 3A$		0.75	v
Diode capacitance	$C_D$	$V_R = 4V, f = 1MHz$		120	pF

**B5817W** Typical Characteristics

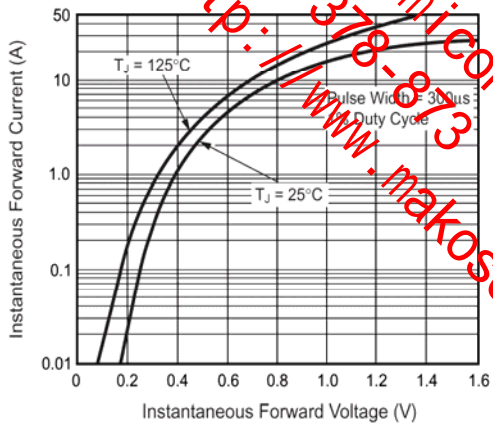
**Fig. 1 - Forward Current Derating Curve**



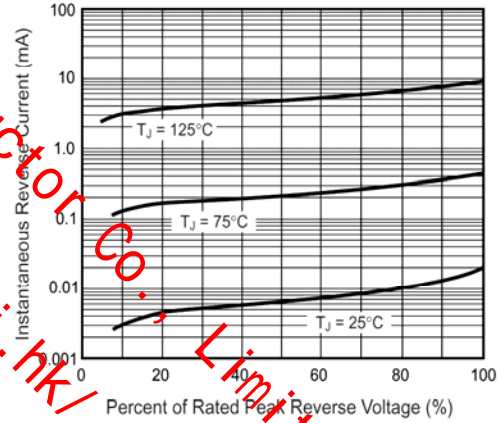
**Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current**



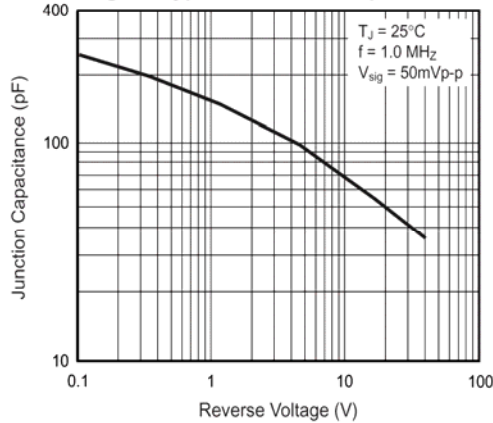
**Fig. 3 - Typical Instantaneous Forward Characteristics**



**Fig. 4 - Typical Reverse Characteristics**



**Fig. 5 - Typical Junction Capacitance**



**Fig. 6 - Typical Transient Thermal Impedance**

