



## Features

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

## Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

### Maximum Ratings

Dimensions in inches and (millimeters)

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	$R_{\theta JA}$	500			°C/W
Storage temperature	$T_{STG}$	-65~+150			°C

## ELECTRICAL CHARACTERISTICS

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	$I_R$	$V_R=20V$ $V_R=30V$ $V_R=40V$ B5817WS B5818WS B5819WS		1	mA
Forward voltage	$V_F$	B5817WS $I_F=1A$ $I_F=3A$		0.45 0.75	V
		B5818WS $I_F=1A$ $I_F=3A$		0.55 0.875	V
		B5819WS $I_F=1A$ $I_F=3A$		0.6 0.9	V
Diode capacitance	$C_D$	$V_R=4V, f=1MHz$		120	pF

## Typical Characteristics

