



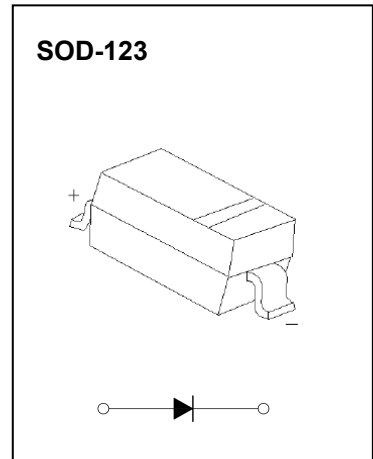
## SOD-123 Plastic-Encapsulate Diodes

### B5817W-5819W SCHOTTKY BARRIER DIODE

#### FEATURES

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

**MARKING:** B5817W: SJ  
B5818W:SK  
B5819W: SL



#### Maximum Ratings and Electrical Characteristics, Single Diode @Ta=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	$I_{FSM}$	9			A
Repetitive Peak Forward Current	$I_{FRM}$	1.5			A
Power Dissipation	$P_d$	500			mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	200			°C/W
Junction temperature	$T_J$	125			°C
Storage Temperature	$T_{STG}$	-55~+150			°C

#### ELECTRICAL CHARACTERISTICS (Ta=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 $I_F=1A$		0.45	V
		$I_F=3A$		0.75	
		B5818W $I_F=1A$		0.55	V
$I_F=3A$		0.875			
B5819W $I_F=1A$		0.6	V		
$I_F=3A$		0.9			
Diode capacitance	$C_D$	$V_R=4V, f=1MHz$		120	pF