LITE-ON SEMICONDUCTORS

B5817WS thru B5819WS

SURFACE MOUNT
SCHOTTKY BARRIER DIODE

REVERSE VOLTAGE – 20 to 40 Volts
FORWARD CURRENT – 1 Ampere

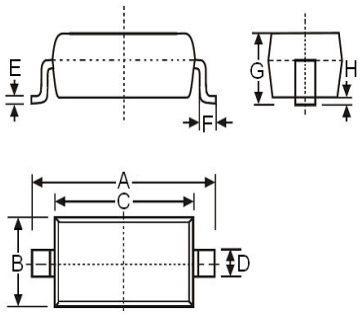
FEATURES

- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case: SOD-323 Plastic
- Case Material: “Green” molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl)
- Moisture Sensitivity: Level 1 per J-STD-020D
- Lead Free in RoHS 2002/95/EC Compliant

SOD-323



SOD-323		
Dim.	Min.	Max.
A	2.50	2.70
B	1.20	1.40
C	1.60	1.80
D	0.25	0.35
E	0.08	0.15
F	0.25	0.40
G	---	1.0
H	0.00	0.10
Dimensions in millimeter		

Maximum Ratings & Thermal Characteristics @ T_A = 25℃ unless otherwise specified

Characteristic	Symbol	B5817WS	B5818WS	B5819WS	Units
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_F	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	250			mW
Thermal Resistance Junction to Ambient	$R_{\Theta JA}$	500			℃/W
Storage Temperature Range	T_{STG}	-65~+150			℃

Electrical Characteristics @ T_A = 25℃ unless otherwise specified

Characteristic	Test Condition	Symbol	B5817WS	B5818WS	B5819WS	Unit
Reverse Breakdown Voltage	I_R = 1mA	V_{BR}	20	30	40	V
Maximum Forward Voltage	I_F = 1A I_F = 3A	V_F	450 750	550 875	600 900	mV
Maximum DC Reverse Current at Rated DC Blocking Voltage	V_R = 20V V_R = 30V V_R = 40V	I_R	1 -- --	-- 1 --	-- -- 1	mA
Typical Junction Capacitance	V_R =4V,f=1MHz	C_T	120			pF

REV. 1, Oct-2010, KSHR09

RATING AND CHARACTERISTIC CURVES
B5817WS thru B5819WS

FIG.1- FORWARD CURRENT DERATING CURVE

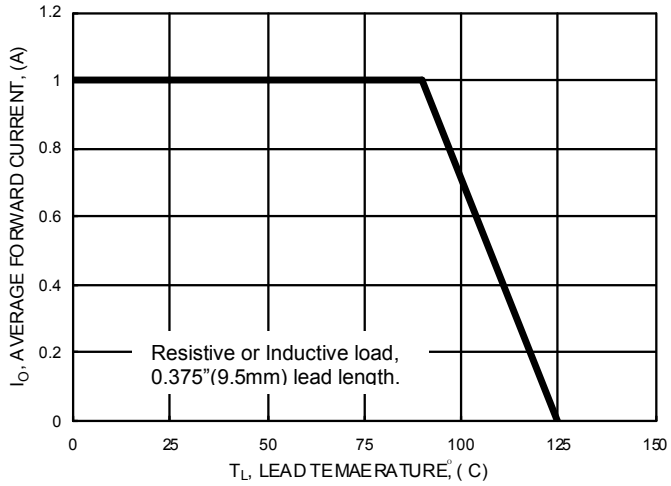


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

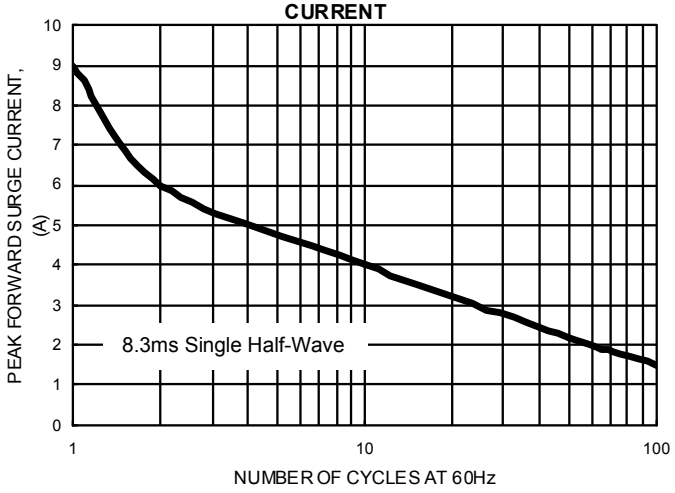


FIG.3- TYPICAL FORWORD CHARACTERISTICS

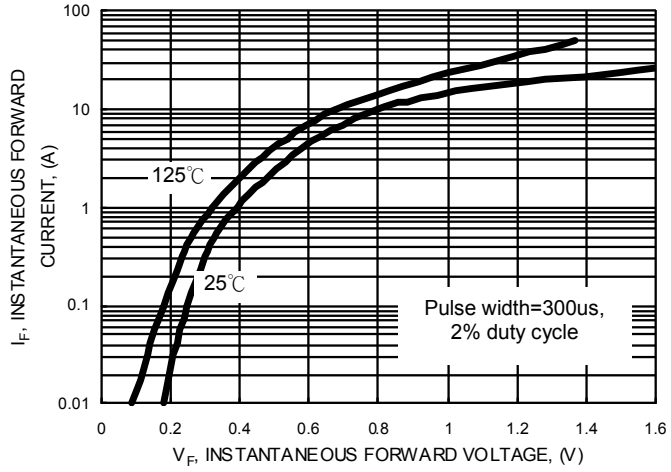


FIG.4- TYPICAL REVERSE CHARACTERISTICS

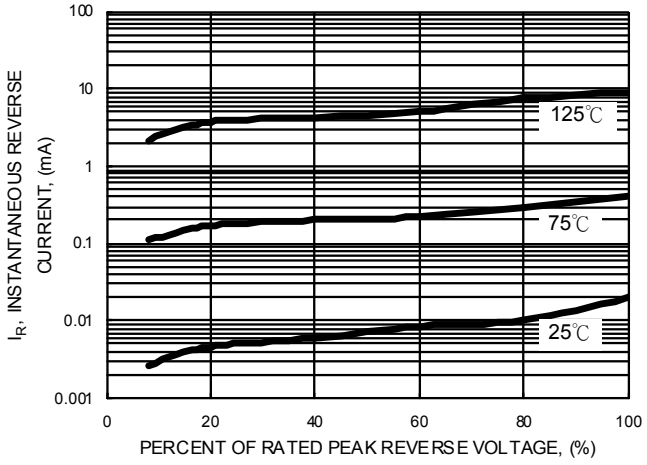
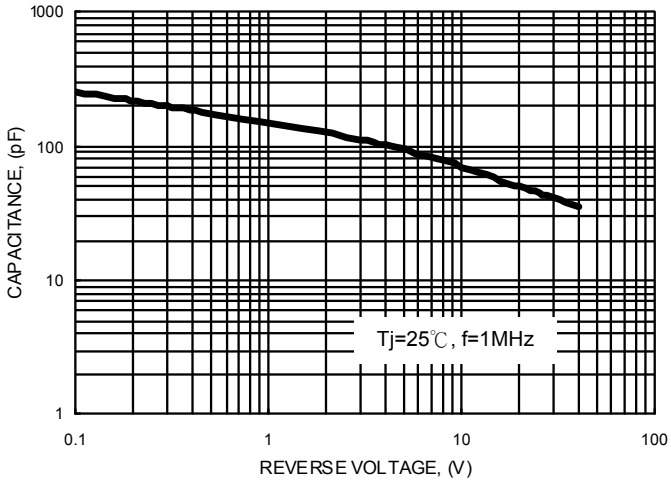


FIG.5- TYPICAL JUNCTION CAPACITANCE



Device Marking :

Device P/N	Marking	Equivalent Circuit Diagram
B5817WS	SJ	
B5818WS	SK	
B5819WS	SL	

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