

II. Schottky Rectifier

1.0A Surface Mount Schottky Rectifier B5817WS~B5819WS

(Package: SOD-323)

<p>FEATURES</p> <ul style="list-style-type: none"> • For use in low voltage, high frequency inverters • Free wheeling, & polarity protection applications • High conductance <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Case : Molded plastic, SOD-323 • Terminals : Plated leads solderable per MIL-STD-750, Method 2026 • Polarity : Color band denotes cathode <p>DEVICE MARKING CODE</p> <ul style="list-style-type: none"> • B5817WS : SJ • B5818WS : SK • B5819WS : SL 	<p>Case: SOD-323 Dimensions in millimeters and (inches)</p>
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Ratings & Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Characteristic	Symbol	B5817WS	B5818WS	B5819WS	Unit
Peak repetitive reverse voltage	V_{RRM}	20	30	40	Volts
Working peak reverse voltage	V_{RWM}				
DC blocking voltage	V_R				
RMS reverse voltage	$V_{R(RMS)}$	14	21	28	Volts
Average rectified output current	I_O	1.0			Amps
Peak forward surge current @8.3ms	I_{FSM}	25			Amps
Power dissipation	P_D	200			mW
Repetitive peak forward current	I_{FRM}	625			mA
Typical thermal resistance, junction to ambient	R_{th-JA}	625			°C/W
Storage temperature range	T_{stg}	-65 to +150			°C

Electrical ratings @Ta=25						
Parameter	Symbols	Min	Max	Unit	Testing Condition	
Reverse breakdown voltage	$V_{(BR)}$	20		Volts	$I_R=1mA$	B5817WS
		30		Volts		B5818WS
		40		Volts		B5819WS
Reverse voltage leakage current	I_R		1	mA	$V_R=20V$	B5817WS
					$V_R=30V$	B5818WS
					$V_R=40V$	B5819WS
Forward Voltage	V_F		0.45	Volts	$I_F=1A$ $I_F=3A$	B5817WS
			0.75	Volts		B5818WS
			0.55 0.875	Volts		B5819WS
Diode Capacitance	C_D		120	PF	$V_R=4V, f=1.0MHz$	

<http://patron-components.com/>

Ratings and Characteristic Curves of B5817WS~B5819WS

FIG. 1- FORWARD CURRENT DERATING CURVE

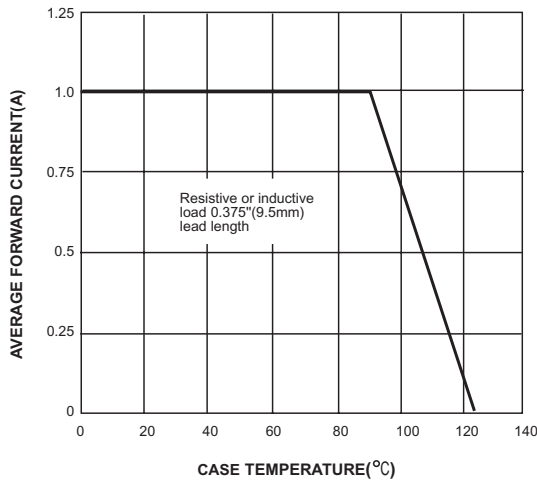


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

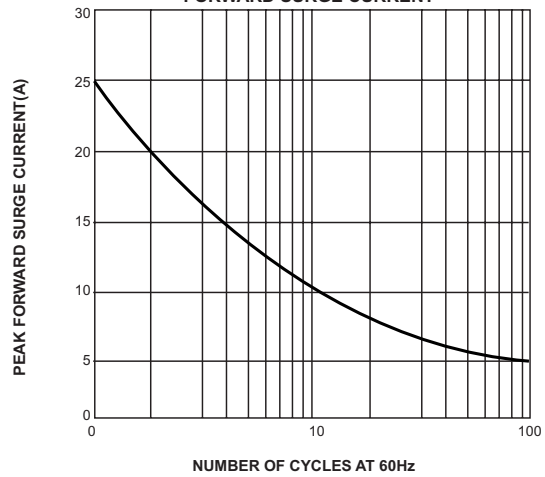


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

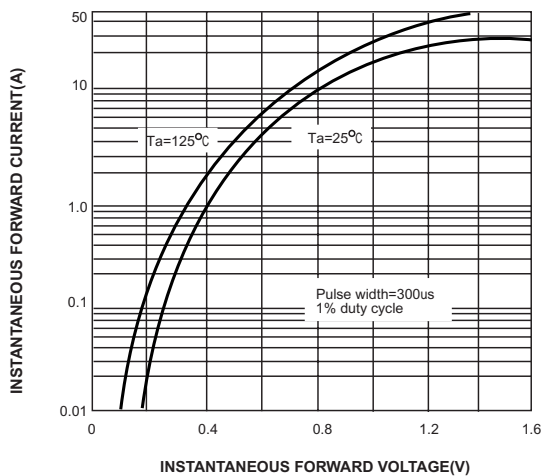


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

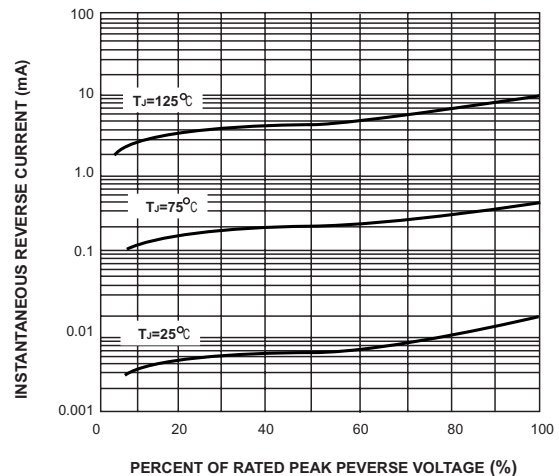


FIG. 5- TYPICAL JUNCTION CAPACITANCE

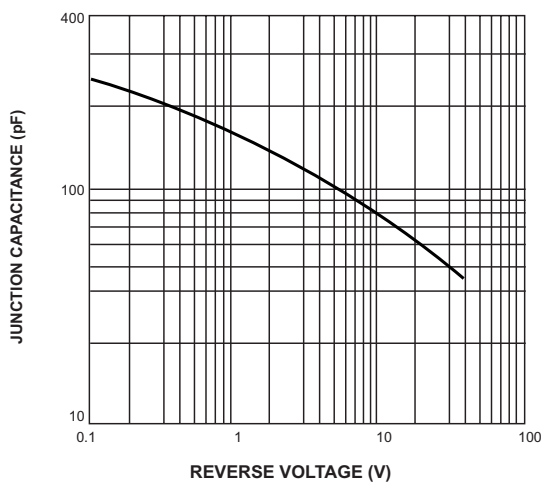


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

