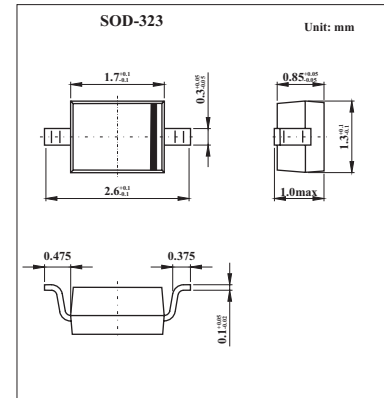


Schottky Barrier Diodes

1N5817WS-1N5819WS

■ Features

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



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	1N5817WS	1N5818WS	1N5819WS	Unit
Non-Repetitive Peak reverse voltage	V_{RM}	20	30	40	V
Peak repetitive Peak reverse voltage	V_{RRM}				
Working Peak Reverse Voltage	V_{RWM}	20	30	40	V
DC Blocking Voltage	V_R				
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		K/W
Storage temperature	T_{STG}		-65 to 150		$^\circ\text{C}$

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Reverse breakdown voltage	1N5817WS	$I_R = 1\text{mA}$	20			V
	1N5818WS		30			
	1N5819WS		40			
Reverse voltage leakage current	1N5817WS	$V_R = 20\text{V}$ $V_R = 30\text{V}$ $V_R = 40\text{V}$			1	mA
	1N5818WS					
	1N5819WS					
Forward voltage	1N5817WS	$I_F = 1\text{A}$ $I_F = 3\text{A}$			0.45	V
					0.75	
	1N5818WS	$I_F = 1\text{A}$ $I_F = 3\text{A}$			0.55	V
					0.875	
	1N5819WS	$I_F = 1\text{A}$ $I_F = 3\text{A}$			0.6	V
						0.9
Diode capacitance	C_D	$V_R = 4\text{V}, f = 1\text{MHz}$			120	pF

■ Marking

NO.	1N5817WS	1N5818WS	1N5819WS
Marking	SJ	SK	SL

1N5817WS-1N5819WS

■ Typical Characteristics

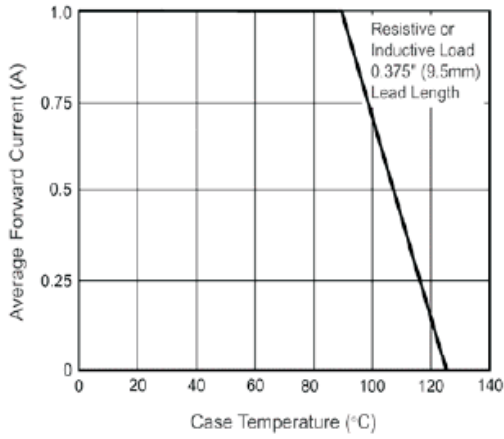


Fig.1 Forward Current Derating Curve

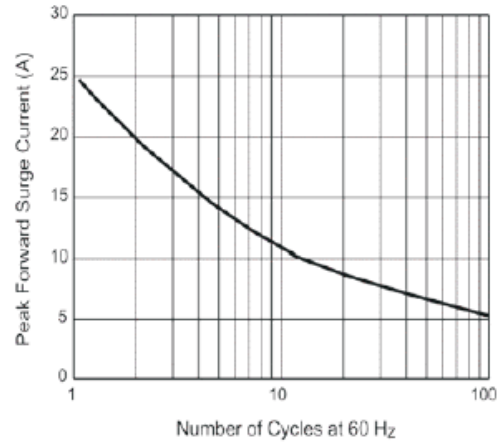


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

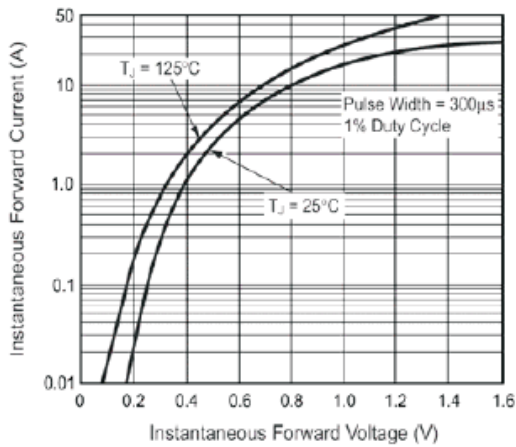


Fig.3 Typical Instantaneous Forward Characteristics

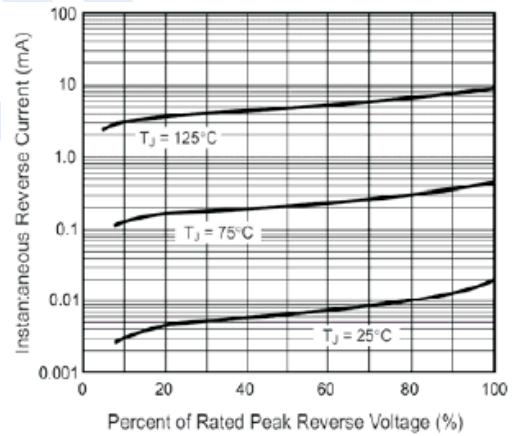


Fig.4 Typical Reverse Characteristics

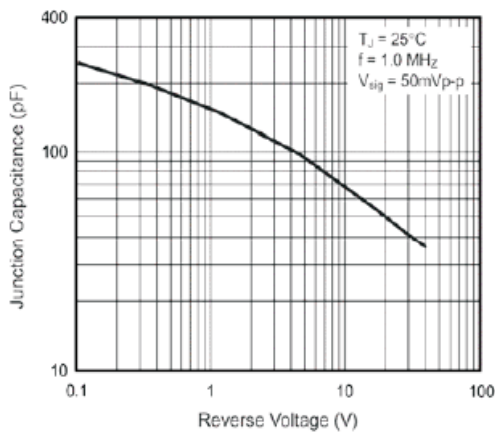


Fig.5 Typical Junction Capacitance

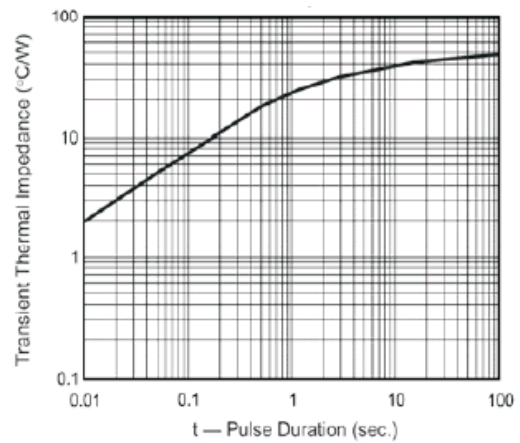


Fig.6 Typical Transient Thermal Impedance