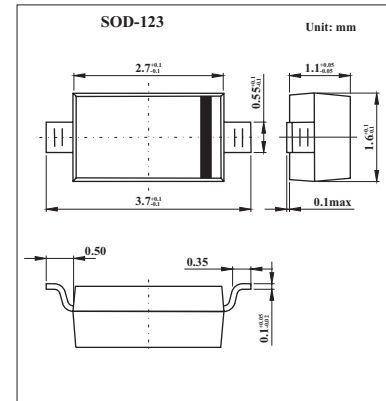


Schottky Barrier Diodes

1N5817W-1N5819W

■ 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	1N5817W	1N5818W	1N5819W	Unit
Non-Repetitive Peak reverse voltage	V_{RM}	20	30	40	V
Peak repetitive Peak reverse voltage	V_{RRM}				V
Working Peak Reverse Voltage	V_{RWM}	20	30	40	V
DC Blocking Voltage	V_R				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			K/W
Storage temperature	T_{STG}	-65 to 150			$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Reverse breakdown voltage	1N5817W	$I_R = 1\text{mA}$	20			V
	1N5818W		30			
	1N5819W		40			
Reverse voltage leakage current	1N5817W	$V_R = 20\text{V}$			1	mA
	1N5818W	$V_R = 30\text{V}$				
	1N5819W	$V_R = 40\text{V}$				
Forward voltage	1N5817W	$I_F = 1\text{A}$			0.45	V
		$I_F = 3\text{A}$			0.75	
	1N5818W	$I_F = 1\text{A}$			0.55	V
		$I_F = 3\text{A}$			0.875	
	1N5819W	$I_F = 1\text{A}$			0.6	V
		$I_F = 3\text{A}$			0.9	
Diode capacitance	C_D	$V_R = 4\text{V}, f = 1\text{MHz}$			120	pF

■ Marking

NO.	1N5817W	1N5818W	1N5819W
Marking	SJ	SK	SL

1N5817W-1N5819W

■ Typical Characteristics

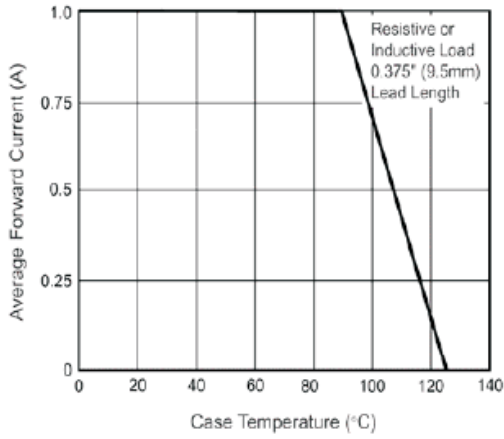


Fig.1 Forward Current Derating Curve

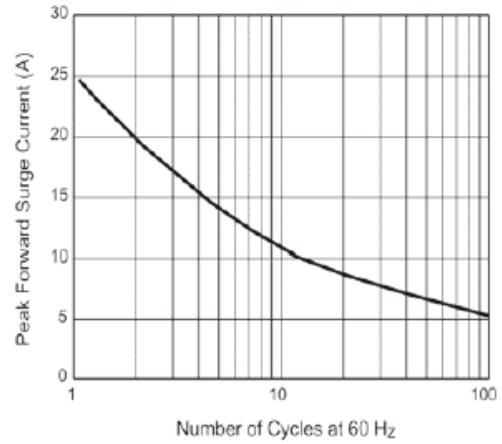


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

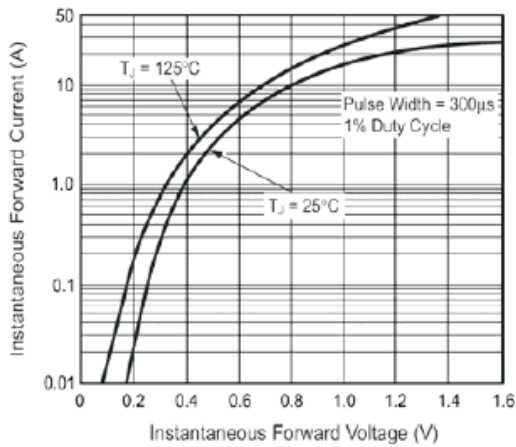


Fig.3 Typical Instantaneous Forward Characteristics

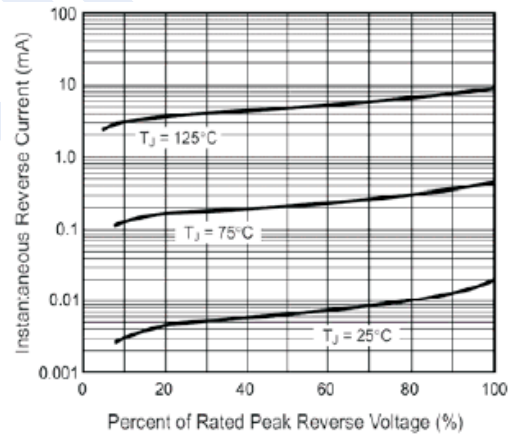


Fig.4 Typical Reverse Characteristics

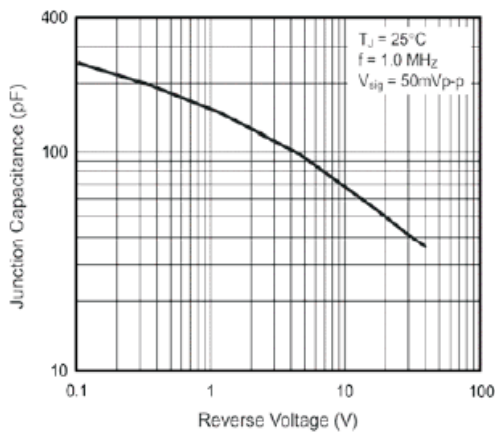


Fig.5 Typical Junction Capacitance

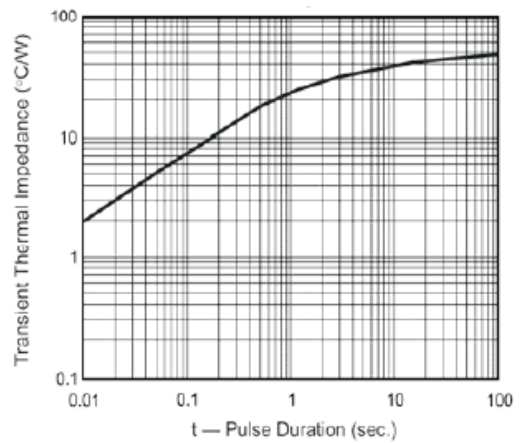


Fig.6 Typical Transient Thermal Impedance