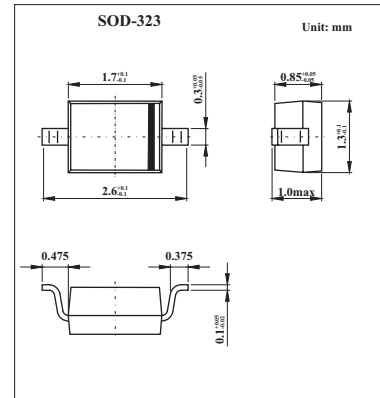


# 1N5817WS-1N5819WS

## 1.0A Schottky Barrier Diode

### ■ Features

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



### ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	1N5817WS	1N5818WS	1N5819WS	Unit
Non-Repetitive Peak reverse voltage	V <sub>RM</sub>	20	30	40	V
Peak repetitive Peak reverse voltage	V <sub>RRM</sub>				
Working Peak Reverse Voltage	V <sub>RWM</sub>	20	30	40	V
DC Blocking Voltage	V <sub>R</sub>				
RMS Reverse Voltage	V <sub>R(RMS)</sub>	14	21	28	V
Average Rectified Output Current	I <sub>O</sub>	1			A
Peak forward surge current @τ=8.3ms	I <sub>FSM</sub>	25			A
Repetitive Peak Forward Current	I <sub>FRM</sub>	625			mA
Power Dissipation	P <sub>d</sub>	250			mW
Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	500			K/W
Storage temperature	T <sub>STG</sub>	-65 to 150			°C

### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit	
Reverse breakdown voltage	V <sub>(BR)</sub>	I <sub>R</sub> = 1mA	1N5817WS	20			V
			1N5818WS	30			
			1N5819WS	40			
Reverse voltage leakage current	I <sub>R</sub>	V <sub>R</sub> =20V V <sub>R</sub> =30V V <sub>R</sub> =40V	1N5817WS			1	mA
			1N5818WS				
			1N5819WS				
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =1A I <sub>F</sub> =3A	1N5817WS			0.45	V
			1N5818WS			0.75	V
		I <sub>F</sub> =1A I <sub>F</sub> =3A	1N5818WS			0.55	V
			1N5819WS			0.875	V
		I <sub>F</sub> =1A I <sub>F</sub> =3A	1N5819WS			0.6	V
			1N5819WS			0.9	V
Diode capacitance	C <sub>D</sub>	V <sub>R</sub> =4V, f=1MHz			120	pF	

### ■ Marking

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

■ Typical Characteristics

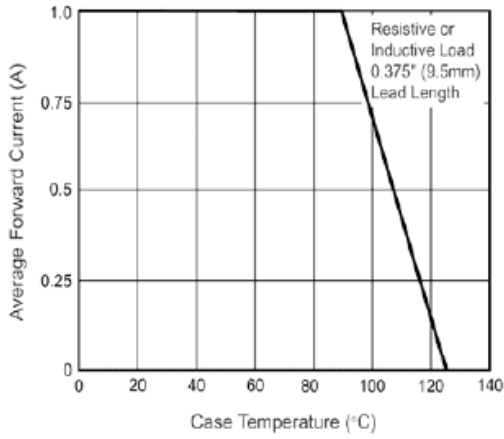


Fig.1 Forward Current Derating Curve

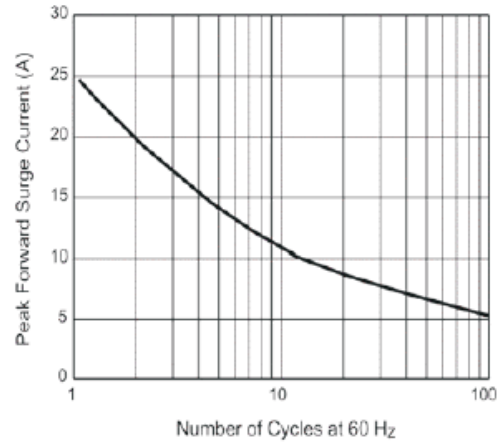


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

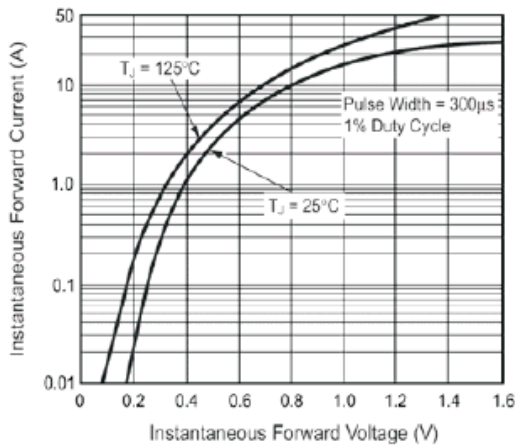


Fig.3 Typical Instantaneous Forward Characteristics

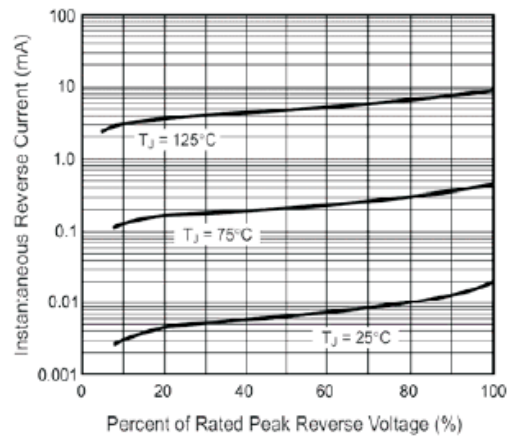


Fig.4 Typical Reverse Characteristics

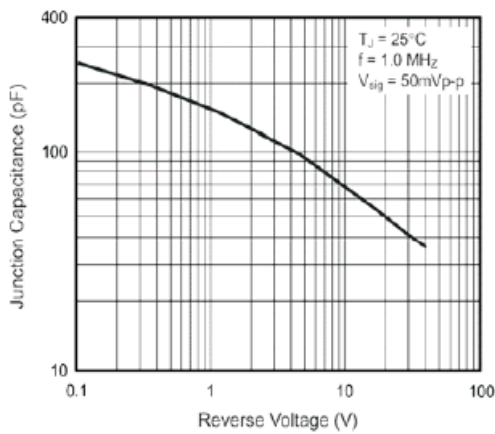


Fig.5 Typical Junction Capacitance

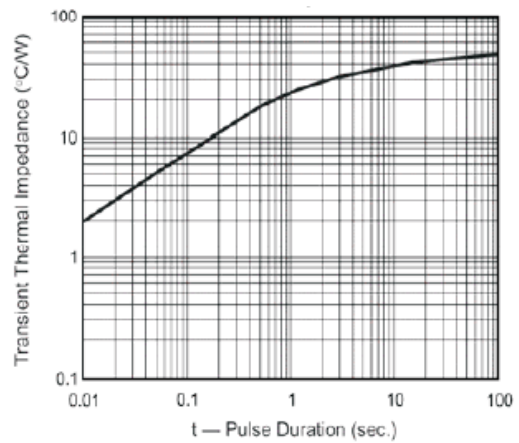


Fig.6 Typical Transient Thermal Impedance