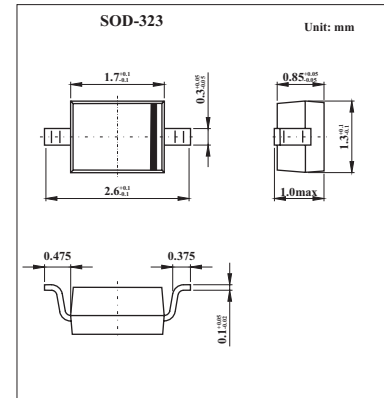


## Schottky Barrier Diodes

### 1N5817WS-1N5819WS

#### ■ 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 @=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	1N5817WS	I <sub>R</sub> = 1mA	20			V
	1N5818WS		30			
	1N5819WS		40			
Reverse voltage leakage current	1N5817WS	V <sub>R</sub> =20V V <sub>R</sub> =30V V <sub>R</sub> =40V			1	mA
	1N5818WS					
	1N5819WS					
Forward voltage	1N5817WS	I <sub>F</sub> =1A I <sub>F</sub> =3A			0.45	V
					0.75	
	1N5818WS	I <sub>F</sub> =1A I <sub>F</sub> =3A			0.55	V
					0.875	
	1N5819WS	I <sub>F</sub> =1A I <sub>F</sub> =3A			0.6	V
					0.9	
Diode capacitance	C <sub>D</sub>	V <sub>R</sub> =4V, f=1MHz			120	pF

#### ■ Marking

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

### 1N5817WS-1N5819WS

■ Typical Characteristics

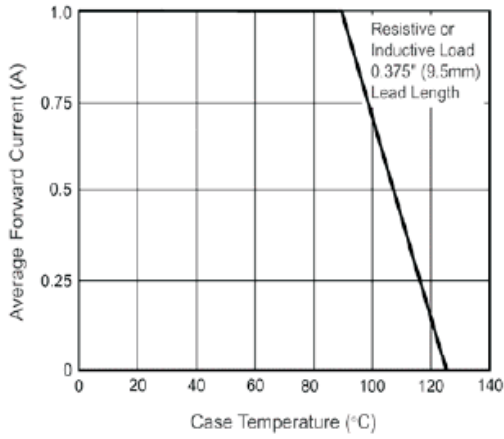


Fig.1 Forward Current Derating Curve

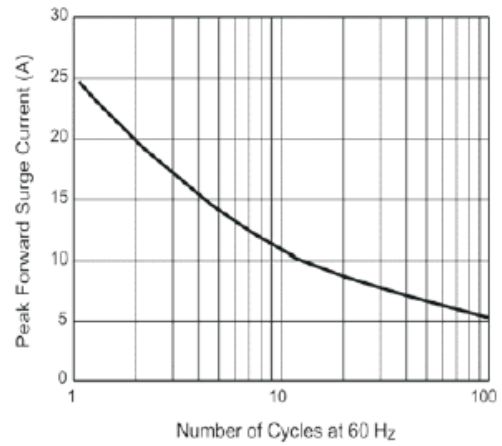


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

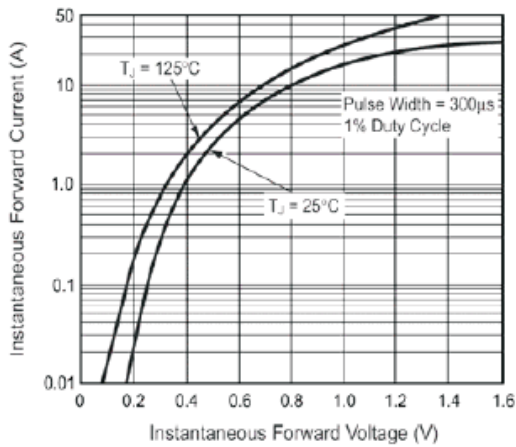


Fig.3 Typical Instantaneous Forward Characteristics

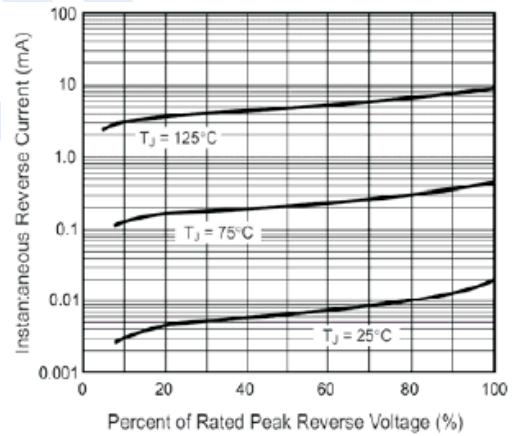


Fig.4 Typical Reverse Characteristics

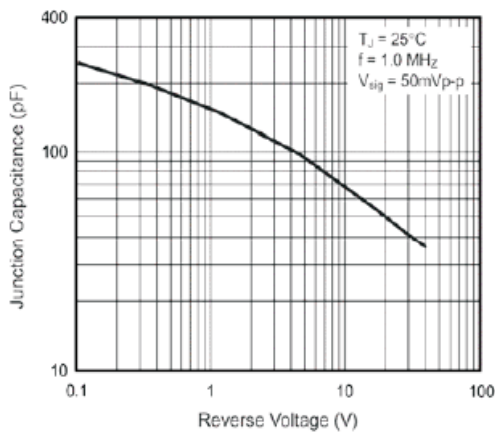


Fig.5 Typical Junction Capacitance

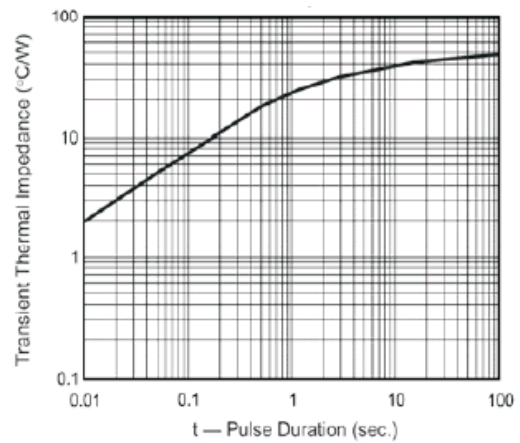


Fig.6 Typical Transient Thermal Impedance