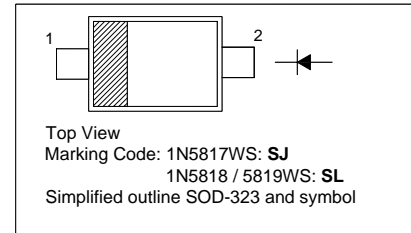


1 A Surface Mount Schottky Barrier Diode

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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

Parameter	Symbol	Value	Unit	
Reverse Voltage	V_R	1N5817WS	20	V
		1N5818WS	30	
		1N5819WS	40	
Average Forward Rectified Current	$I_{F(AV)}$	1	A	
Non-Repetitive Peak Forward Surge Current (t = 8.3 ms)	I_{FSM}	9	A	
Power Dissipation	P_{tot}	450	mW	
Operating Temperature Range	T_j	- 55 to + 125	$^\circ\text{C}$	
Storage Temperature Range	T_{stg}	- 55 to + 125	$^\circ\text{C}$	

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

Parameter	Symbol	Min.	Max.	Unit	
Reverse Breakdown Voltage at $I_R = 1\text{ mA}$	$V_{(BR)R}$	1N5817WS	20	-	V
		1N5818WS	30	-	
		1N5819WS	40	-	
Forward Voltage at $I_F = 1\text{ A}$ at $I_F = 3\text{ A}$	V_F	1N5817WS	-	0.45	V
		1N5818WS	-	0.55	
		1N5819WS	-	0.6	
		1N5817WS	-	0.75	
		1N5818WS	-	0.875	
		1N5819WS	-	0.9	
Reverse Voltage Leakage Current at $V_R = 20\text{ V}$ at $V_R = 30\text{ V}$ at $V_R = 40\text{ V}$	I_R	1N5817WS	-	1	mA
		1N5818WS	-	1	
		1N5819WS	-	1	
Total Capacitance at $V_R = 4\text{ V}$, $f = 1\text{ MHz}$	C_{tot}	-	120	pF	

1N5817WS~1N5819WS

Fig. 1 - Forward Current Derating Curve

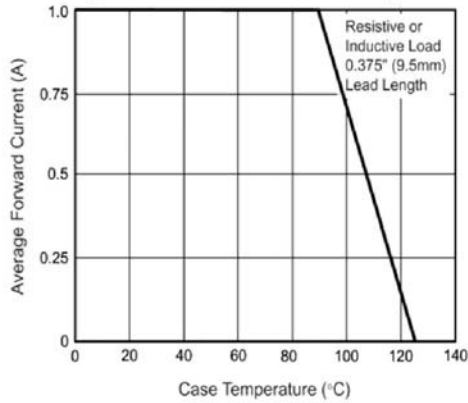


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

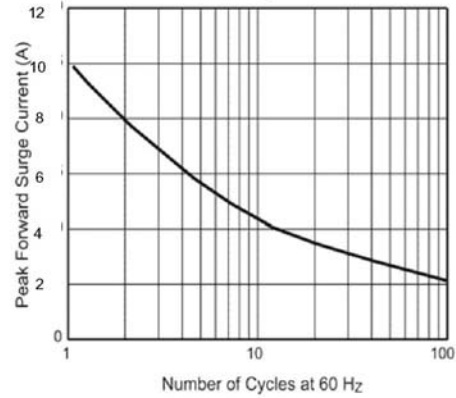


Fig. 3 - Typical Instantaneous Forward Characteristics

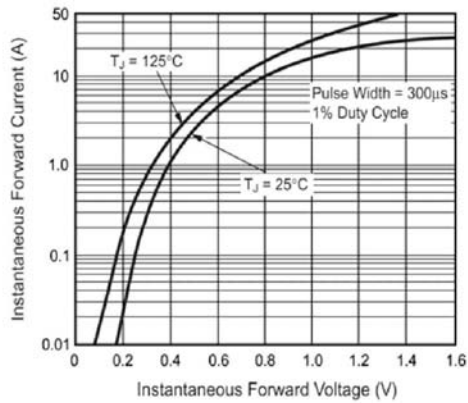


Fig. 4 - Typical Reverse Characteristics

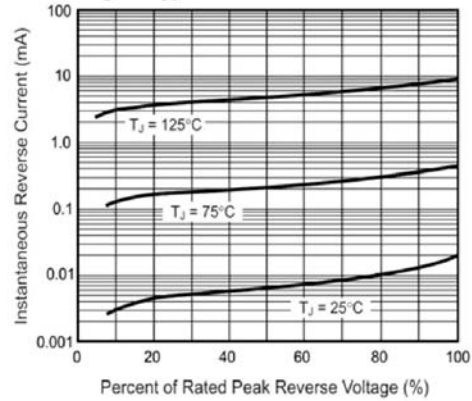


Fig. 5 - Typical Junction Capacitance

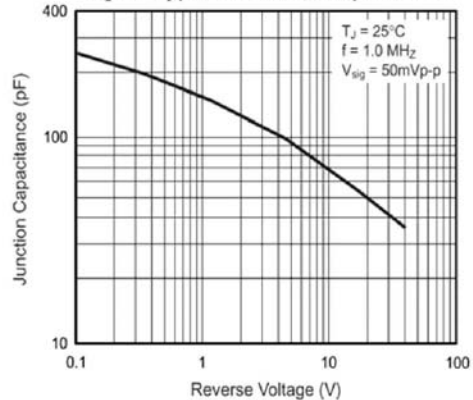


Fig. 6 - Typical Transient Thermal Impedance

