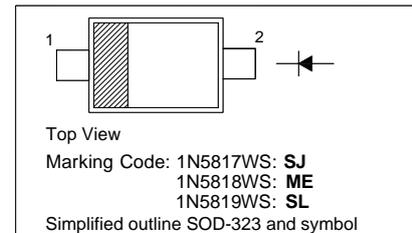


## 1 A Surface Mount Schottky Barrier Diode

**PINNING**

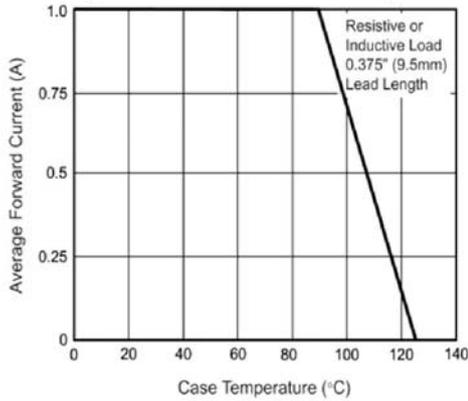
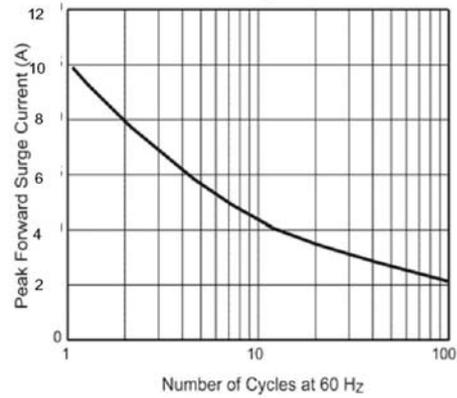
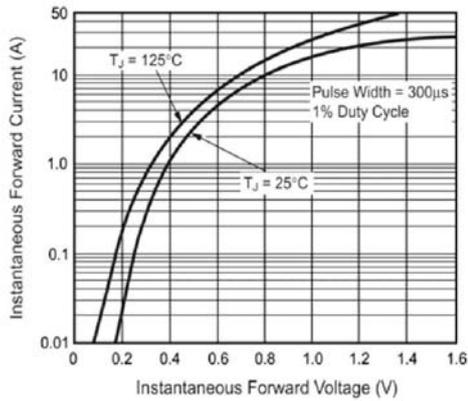
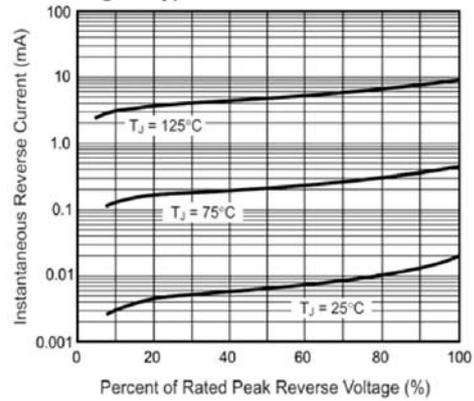
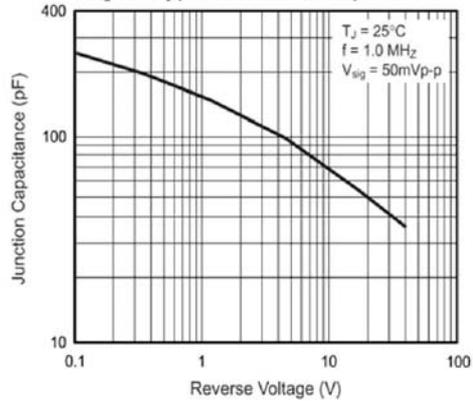
PIN	DESCRIPTION
1	Cathode
2	Anode


**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**
