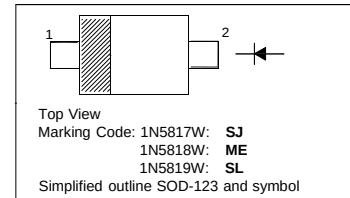


1A Surface Mount Schottky Barrier Diode

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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

Parameter	Symbol	Value	Unit
Reverse Voltage 1N5817W 1N5818W 1N5819W	V_R	20 30 40	V
Average Forward Rectified Current	$I_{F(AV)}$	1	A
Non-Repetitive Peak Forward Surge Current (8.3 ms Single Half Sine-Wave)	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 $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 1\text{ mA}$ 1N5817W 1N5818W 1N5819W	$V_{(BR)R}$	20 30 40	- - -	V
Reverse Current at $V_R = 20\text{ V}$ at $V_R = 30\text{ V}$ at $V_R = 40\text{ V}$ at $V_R = 4\text{ V}$ at $V_R = 6\text{ V}$ 1N5817W 1N5818W 1N5819W 1N5819W 1N5819W	I_R	- - - - -	1 1 1 0.05 0.075	mA
Forward Voltage at $I_F = 0.1\text{ A}$ at $I_F = 1\text{ A}$ 1N5819W 1N5817W 1N5818W 1N5819W at $I_F = 3\text{ A}$ 1N5817W 1N5818W 1N5819W	V_F	- - - - - - - - -	0.45 0.45 0.55 0.6 0.75 0.875 0.9	V
Total Capacitance at $V_R = 4\text{ V}$, $f = 1\text{ MHz}$	C_{tot}	-	120	pF

1N5817W~1N5819W

Fig. 1 - Forward Current Derating Curve

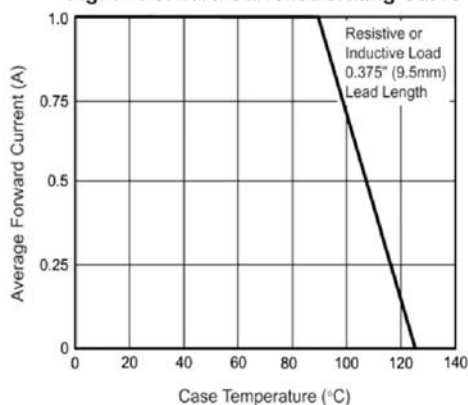


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

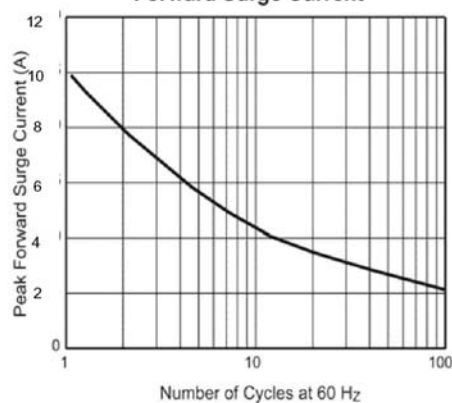


Fig. 3 - Typical Instantaneous Forward Characteristics

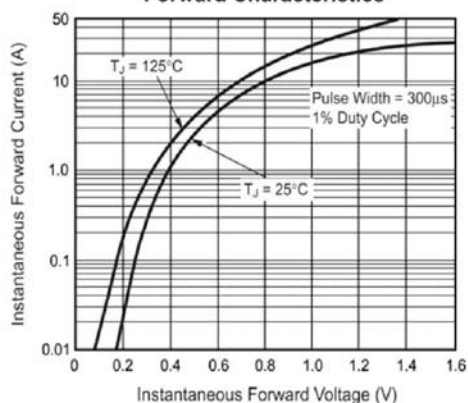


Fig. 4 - Typical Reverse Characteristics

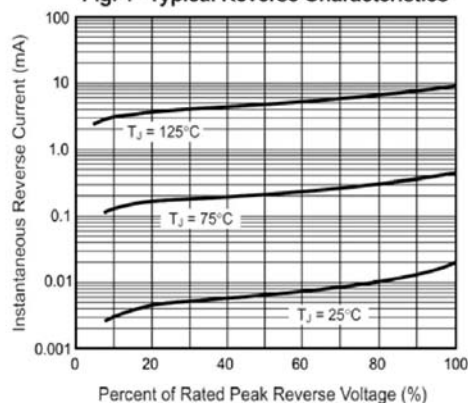


Fig. 5 - Typical Junction Capacitance

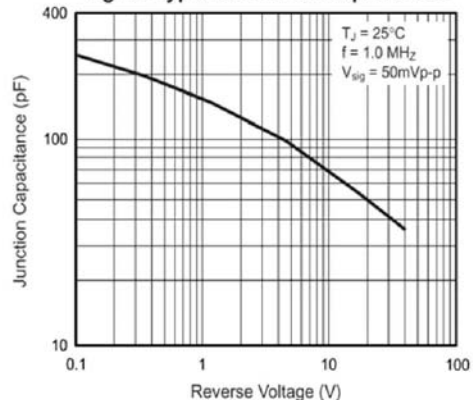


Fig. 6 - Typical Transient Thermal Impedance

