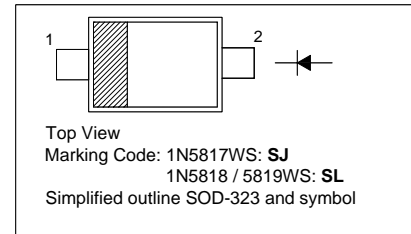


# 1 A Surface Mount Schottky Barrier Diode

# 1N5817WS~1N5819WS

### 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 ( $t = 8.3\text{ ms}$ )	$I_{FSM}$	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 $I_F = 1\text{ A}$	$V_F$	1N5817WS -	0.45	V
		1N5818WS -	0.55	
		1N5819WS -	0.6	
at $I_F = 3\text{ A}$	$V_F$	1N5817WS -	0.75	V
		1N5818WS -	0.875	
		1N5819WS -	0.9	
Reverse Voltage Leakage Current at $V_R = 20\text{ V}$	$I_R$	1N5817WS -	1	mA
at $V_R = 30\text{ V}$		1N5818WS -	1	
at $V_R = 40\text{ V}$		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

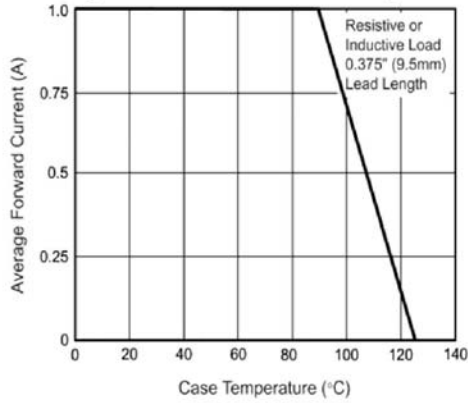


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

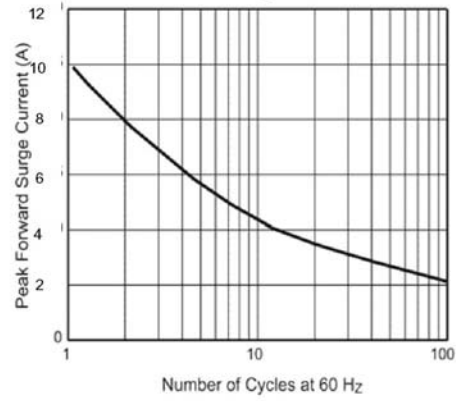


Fig. 3 - Typical Instantaneous Forward Characteristics

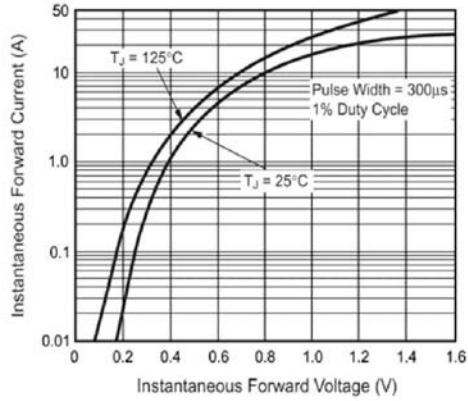


Fig. 4 - Typical Reverse Characteristics

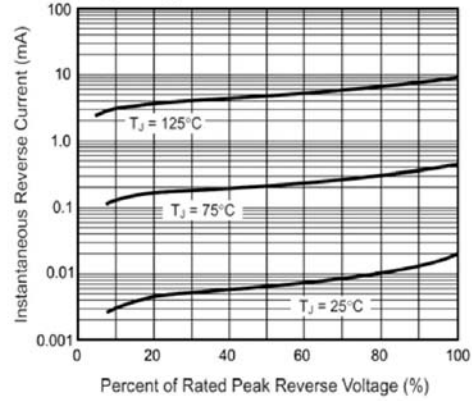


Fig. 5 - Typical Junction Capacitance

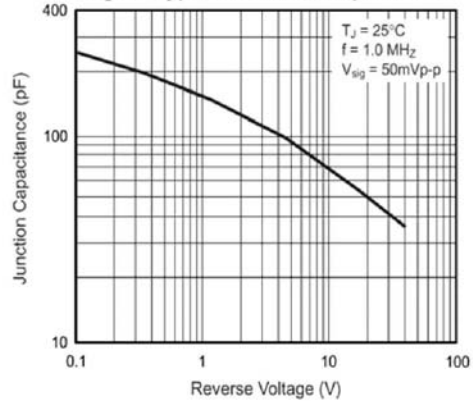
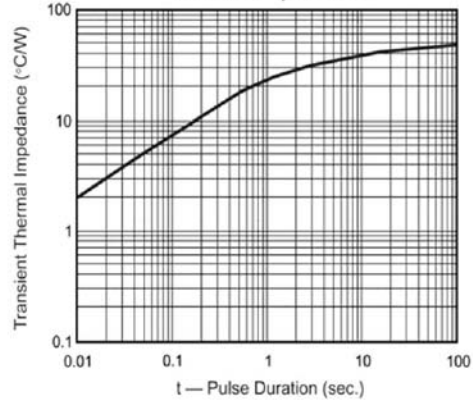


Fig. 6 - Typical Transient Thermal Impedance

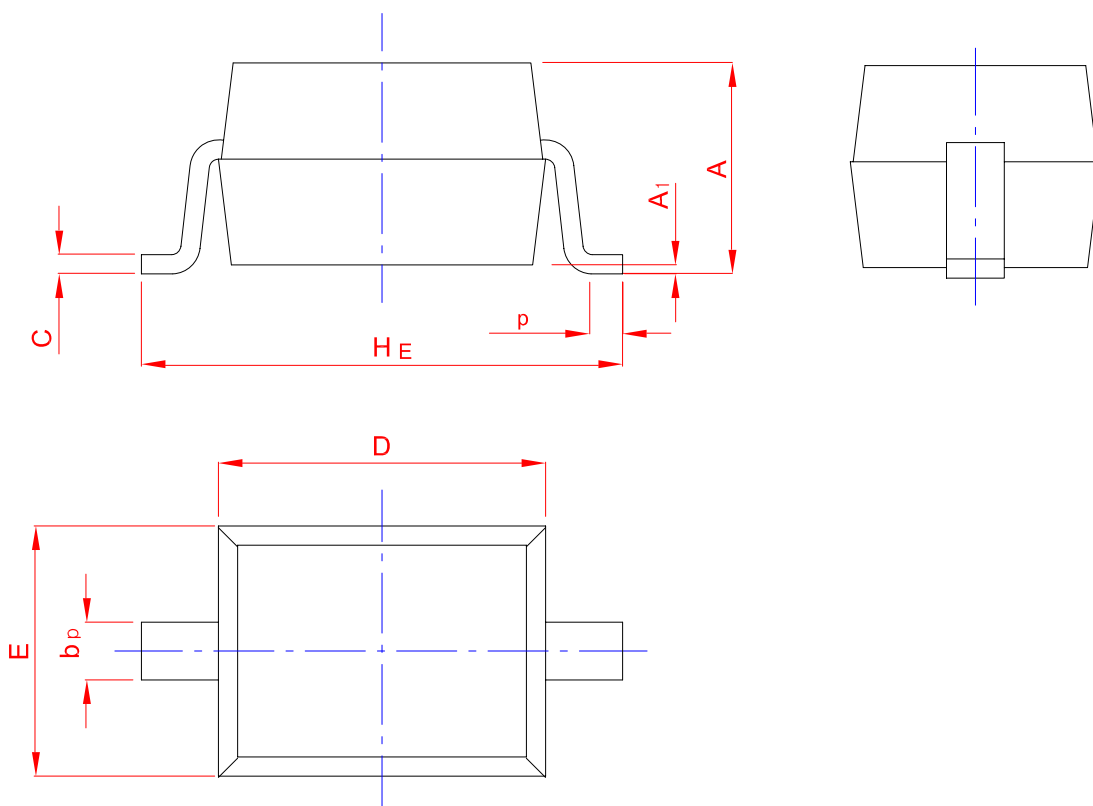
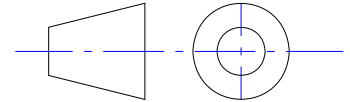




# PACKAGE OUTLINE 1N5817WS~1N5819WS

Plastic surface mounted package; 2 leads

SOD-323



UNIT	A	b <sub>p</sub>	C	D	E	H <sub>E</sub>	A <sub>1</sub>	L <sub>p</sub>
mm	1.20	0.40	0.15	1.80	1.35	2.80	0.10	0.50
	0.90	0.25	0.10	1.60	1.15	2.30	0.01	0.20

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