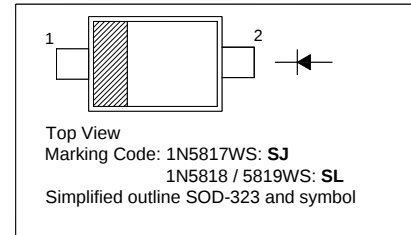


1 A Surface Mount Schottky Barrier Diode

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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

Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	1N5817WS 20 1N5818WS 30 1N5819WS 40	V
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 $T_a = 25^\circ\text{C}$

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

1N5817WS~1N5819WS

Fig. 1 - Forward Current Derating Curve

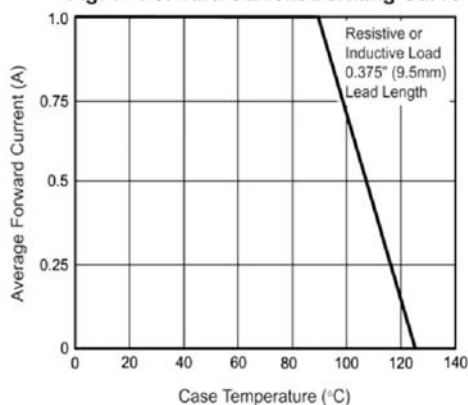


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

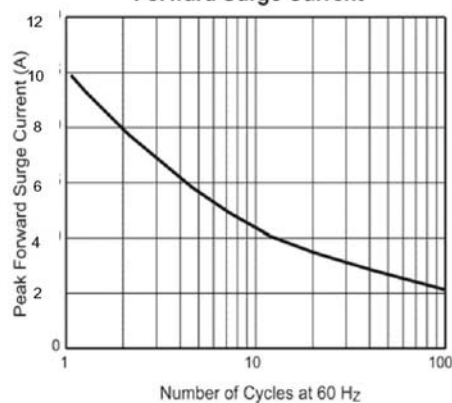


Fig. 3 - Typical Instantaneous Forward Characteristics

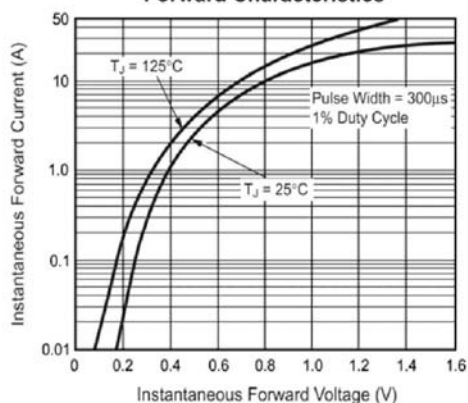


Fig. 4 - Typical Reverse Characteristics

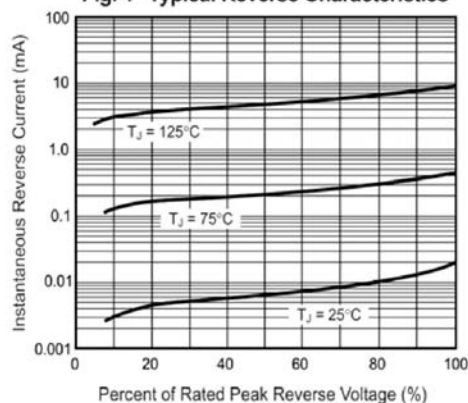


Fig. 5 - Typical Junction Capacitance

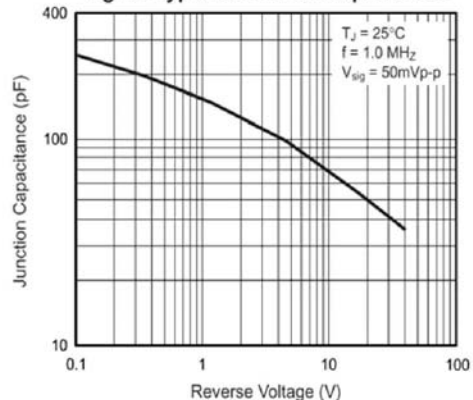
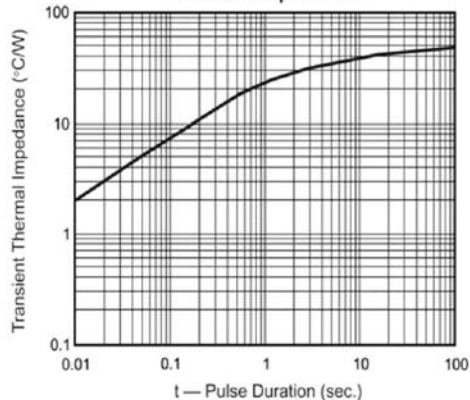


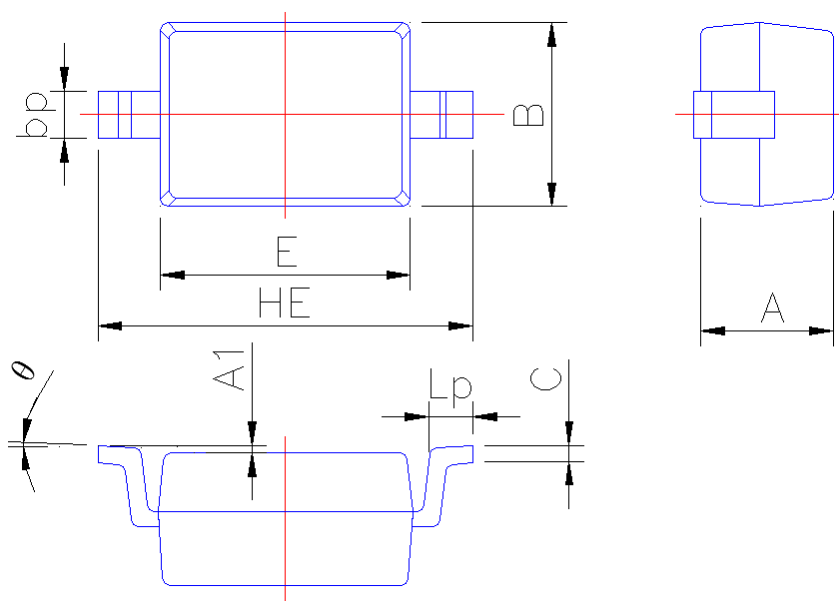
Fig. 6 - Typical Transient Thermal Impedance



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



Symbol	Dimension in Millimeters	
	Min	Max
A	0.95	1.15
A1	0.010	0.100
B	1.20	1.40
bp	0.25	0.40
C	0.09	0.150
E	1.60	1.80
HE	2.30	2.70
Lp	0.20	0.40
θ	0°	5°