

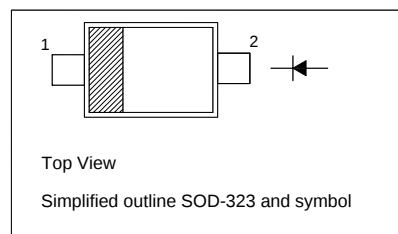
1A Surface Mount Schottky Barrier Diode

FEATURES

For use in low voltage, high frequency inverters
Free wheeling, and polarity protection applications.

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



MARKING: B5817WS: SJ

B5818WS: SL

B5819WS: SL

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

Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	20 30 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 $T_a = 25\text{ }^{\circ}\text{C}$

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

Typical Characteristics

Fig. 1 - Forward Current Derating Curve

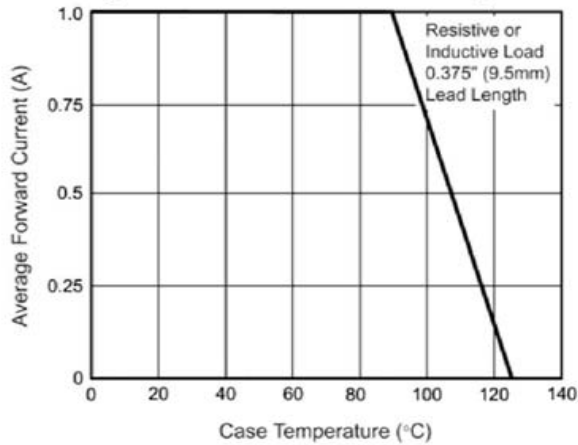


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

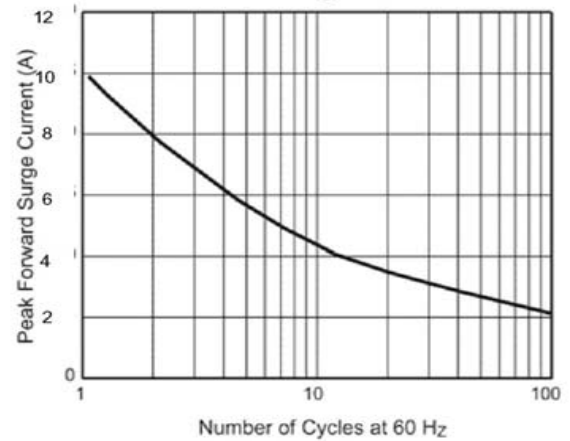


Fig. 3 - Typical Instantaneous Forward Characteristics

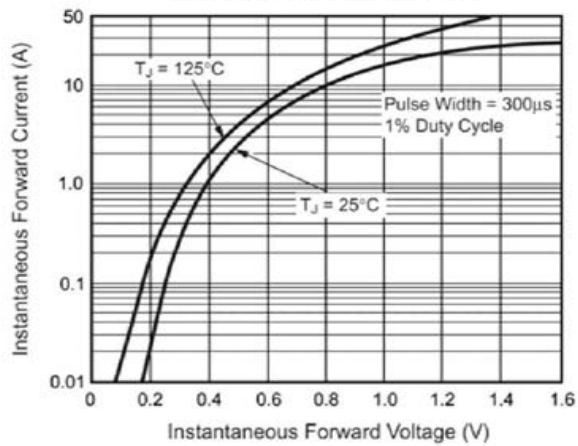


Fig. 4 - Typical Reverse Characteristics

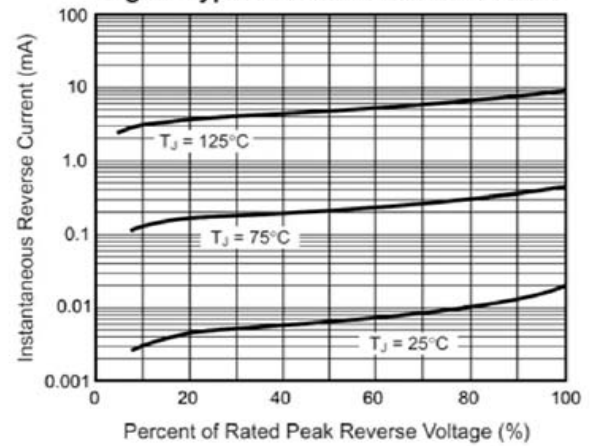


Fig. 5 - Typical Junction Capacitance

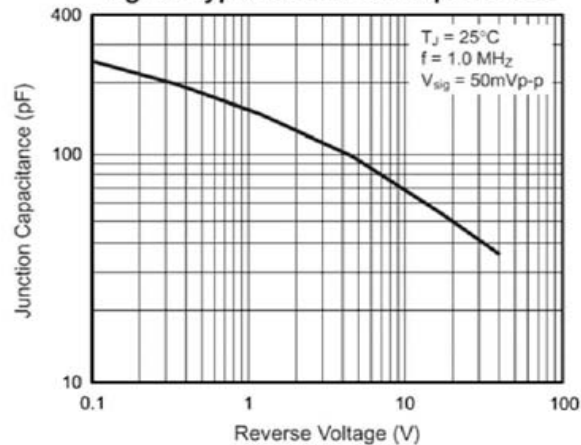
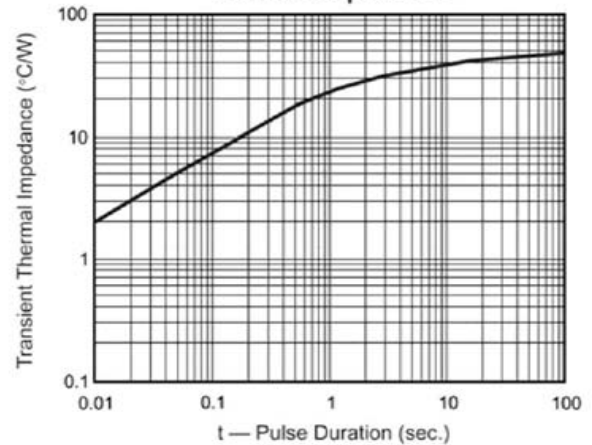


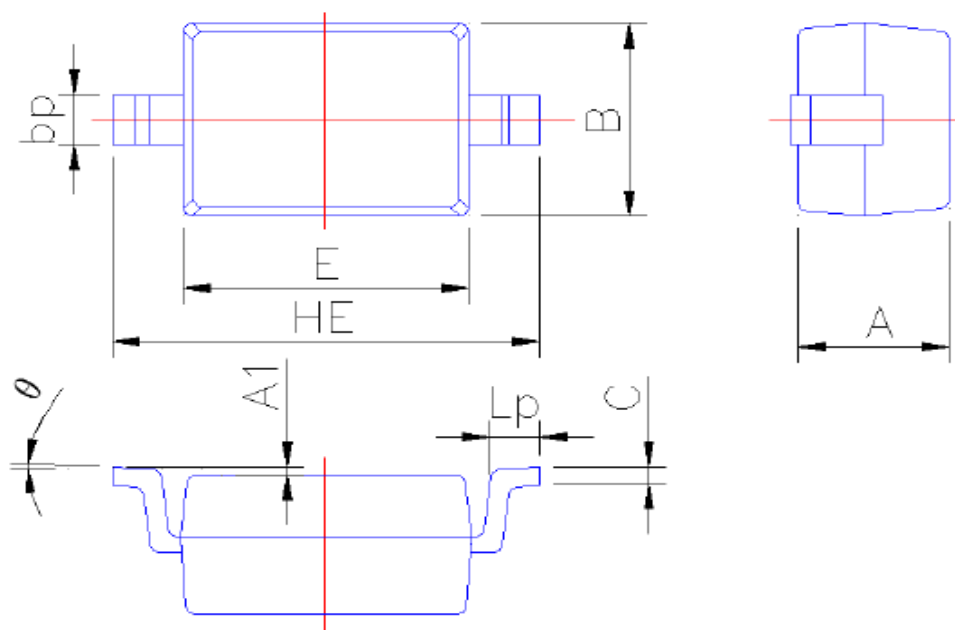
Fig. 6 - Typical Transient Thermal Impedance



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°