



B5819WSE

Surface Mount Schottky Rectifier
Reverse Voltage - 40V
Forward Current - 1.0A

FEATURES

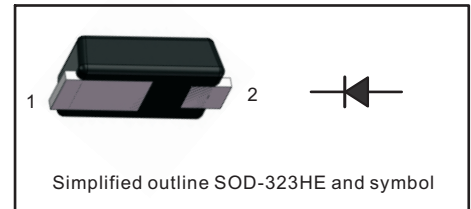
- Heatsink structure
- Metal silicon junction, majority carrier conduction
- Super Low VF Schottky barrier diodes
- For surface mounted applications
- Low power loss, high efficiency
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case: SOD-323HE
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 5.4mg/0.00019oz

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Maximum Ratings (TA = 25 °C unless otherwise noted)

Parameter	Symbols	B5819WSE	Units
Maximum repetitive peak reverse voltage	V_{RRM}	40	V
Maximum RMS voltage	V_{RMS}	28	V
Maximum DC blocking voltage	V_{DC}	40	V
Maximum average forward rectified current	$I_{F(AV)}$	1.0	A
Peak forward surge current 8.3 ms single half sinewave superimposed on rated load	I_{FSM}	15	A
Operating junction temperature range	T_j	- 55 to + 125	°C
Storage temperature range	T_{stg}	- 55 to + 150	°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)

Parameter	Test Conditions	Symbols	B5819WSE	Units
Minimum Breakdown voltage	$T_a = 25^{\circ}\text{C}, I_R = 1\text{ mA}$	V_{BR}	40	V
Maximum instantaneous forward voltage	$I_F = 1\text{ A}, T_a = 25^{\circ}\text{C}$	V_F	0.60	V
Maximum DC reverse current at rated DC blocking voltage	$T_a = 25^{\circ}\text{C}$	I_R	50	uA
Typical junction capacitance	4.0 V, 1 MHz	C_J	60	pF



Fig.1 Forward Current Derating Curve

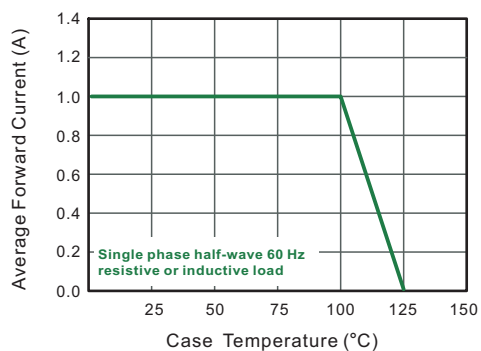


Fig.2 Typical Reverse Characteristics

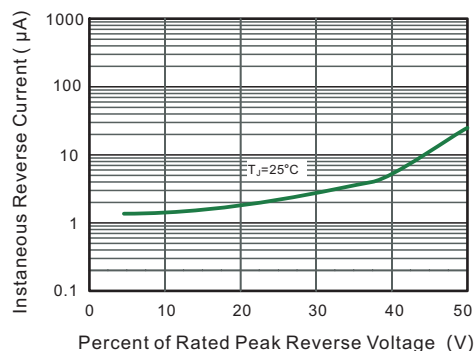


Fig.3 Typical Forward Characteristic

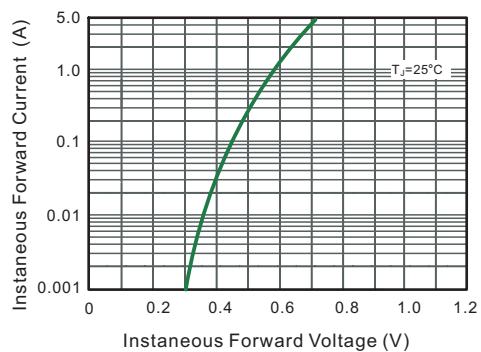


Fig.4 Typical Junction Capacitance

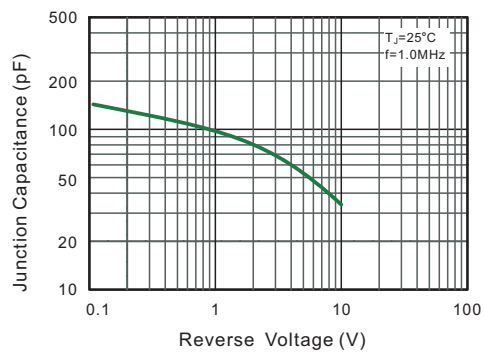
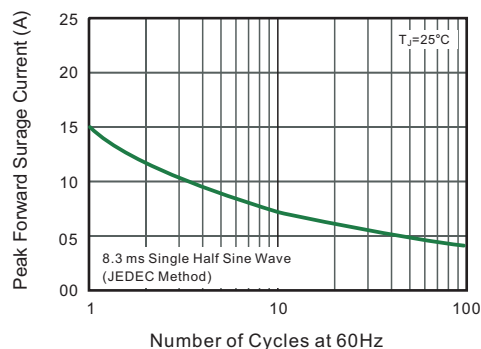


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

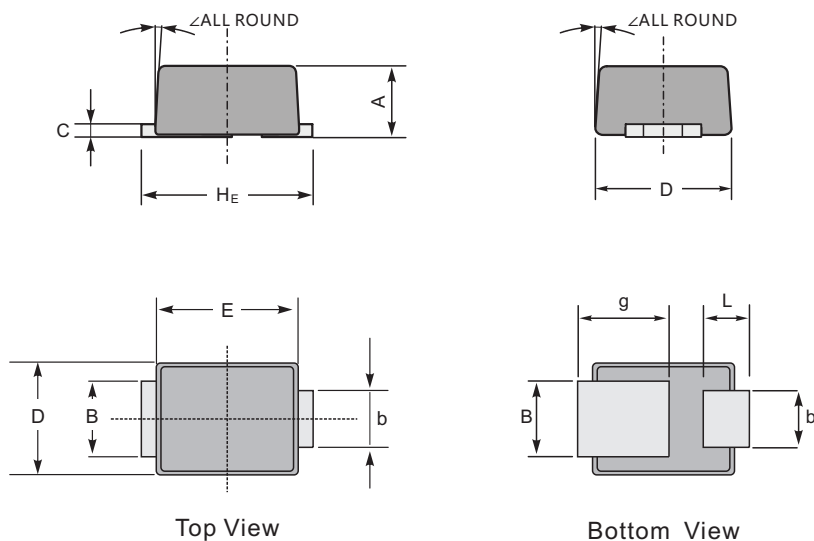




PACKAGE OUTLINE

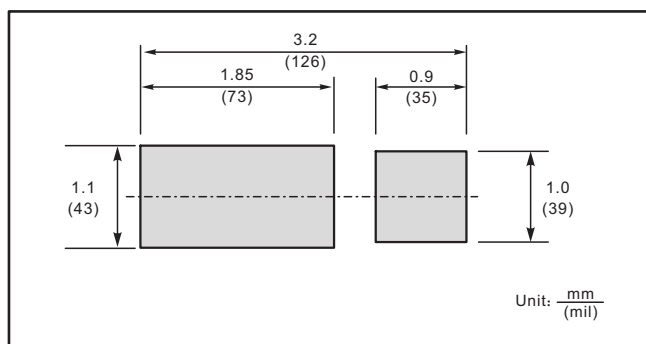
Plastic surface mounted package; 2 leads

SOD-323HE



UNIT		A	b	B	C	D	E	H _E	g	L	∠
mm	max	0.77	0.75	0.95	0.20	1.45	2.3	2.7	1.55	0.8	12°
	min	0.57	0.45	0.65	0.10	1.25	2.1	2.3	1.1	0.4	
mil	max	30	30	37	8	57	91	106	61	31	
	min	22	18	26	4	49	83	91	43	16	

The recommended mounting pad size



Marking

Type number	Marking code
B5819WSE	SL