



**THE DATASHEET OF
B5819WS**



B5819WS SCHOTTKY BARRIER DIODE



Features

- For use in low voltage, high frequency inverters
- Free wheeling, and polarity protection applications
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: Molded plastic body
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026
- Polarity: Polarity symbols marked on case
- Marking: B5819WS:SLS

Maximum Ratings @T_A=25°C unless otherwise specified

Parameter Marking code	Symbol	B5819WS SLS	Units
Maximum repetitive peak reverse voltage	V _{RRM}	40	V
Maximum DC blocking voltage	V _R		
Maximum RMS voltage	V _{R(RMS)}	28	V
Average rectified output current	I _O	1.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	9	A
Power Dissipation	P _d	250	mW
Typical thermal resistance	R _{ΘJA}	500	°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-65 to +150	°C

Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Units	Test Condition
Reverse Breakdown Voltage *	V _(BR)	40	-	V	I _R =1mA
Forward Voltage *	V _{FM}	-	0.6	V	I _F =1A
		-	0.9	V	I _F =3A
Reverse Leakage Current *	I _{RM}	-	200	μA	V _R =40V
Capacitance between terminals	C _T	-	120	pF	V _R =4V, f=1.0MHz

* Pulse width < 300 μs, duty cycle < 2%

Ratings and Characteristics Curves

FIG. 1- FORWARD CURRENT DERATING CURVE

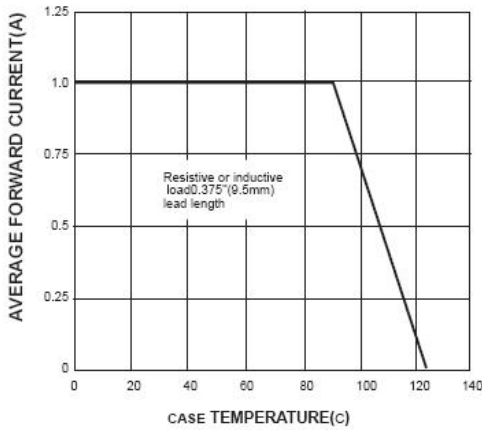


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

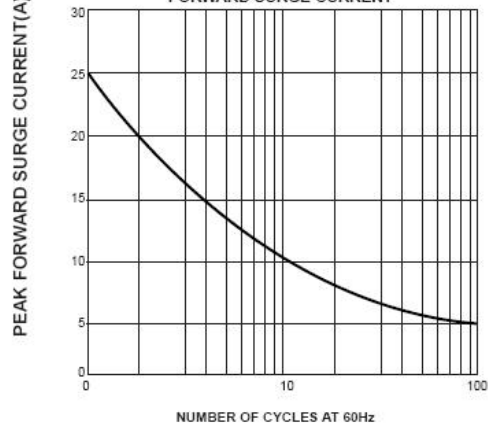


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

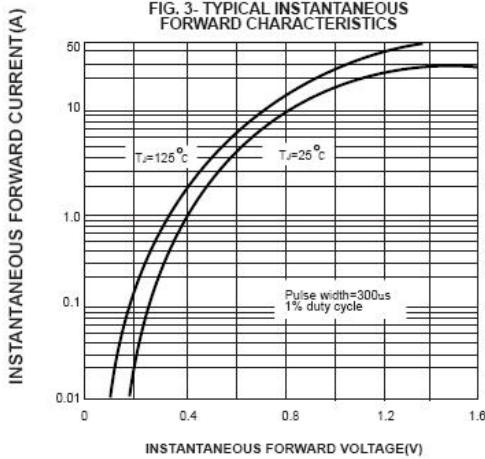


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

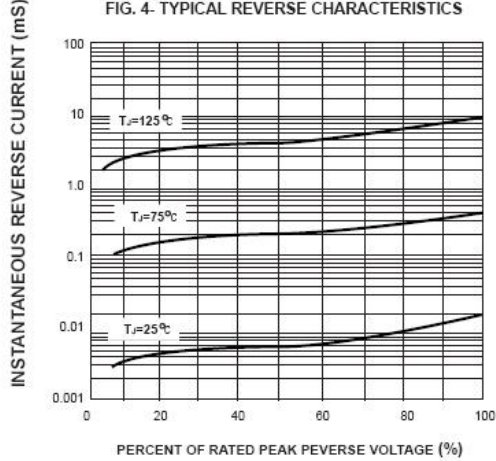


FIG. 5- TYPICAL JUNCTION CAPACITANCE

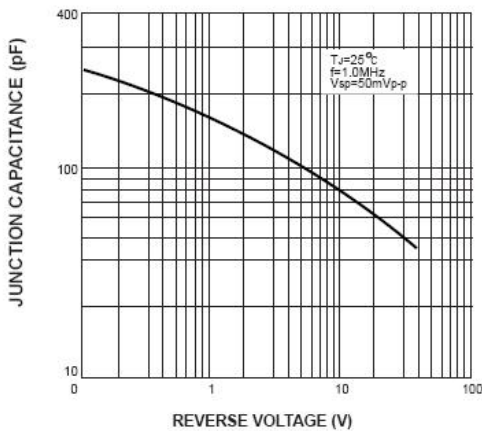
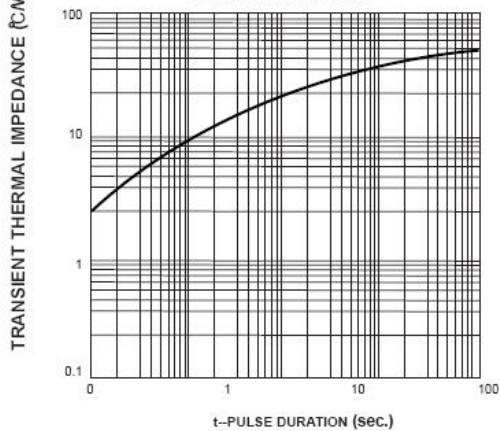
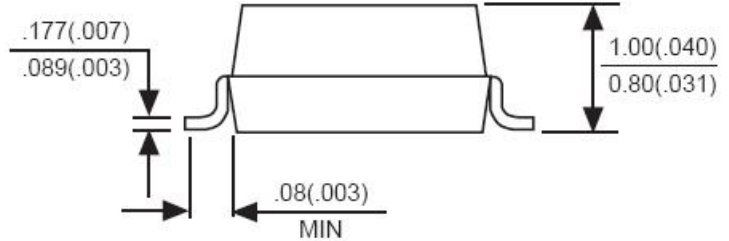
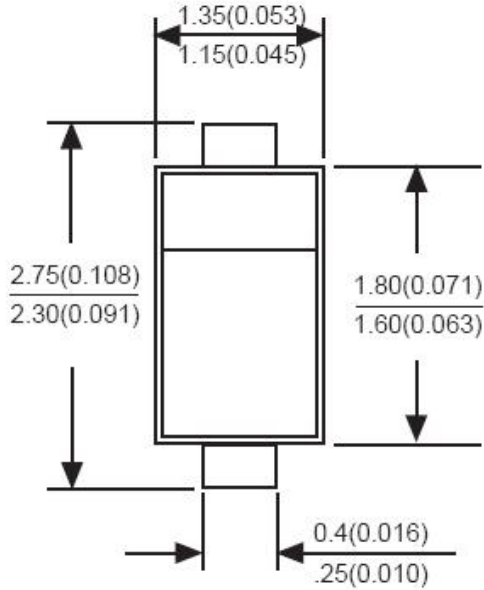


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



Mechanical Dimensions SOD-323(Inches/Millimeters)



Ordering Information

Device	Package	Shipping
B5819WS	SOD-323 (Pb-Free)	3000pcs / reel

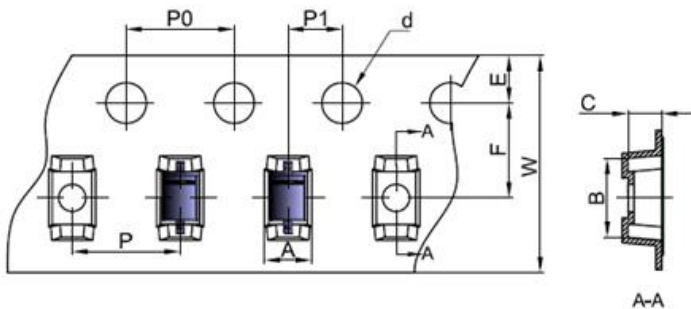
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram



SLS = Marking Code

Carrier Tape Specification SOD-323



SYMB OL	Millimeters	
	Min.	Max.
B	2.85	2.95
C	1.20	1.30
d	1.40	1.60
E	1.65	1.85
F	3.40	3.60
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
W	7.90	8.30

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