

B5819WS SCHOTTKY BARRIER DIODE



Features

- For use in low voltage, high frequency inverters
- Free wheeling, and polarity protection applications
- This is a Halogen 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

Maximum Ratings @T_A=25°C unless otherwise specified

Parameter Marking code	Symbol	B5819WS SL	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	uA	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

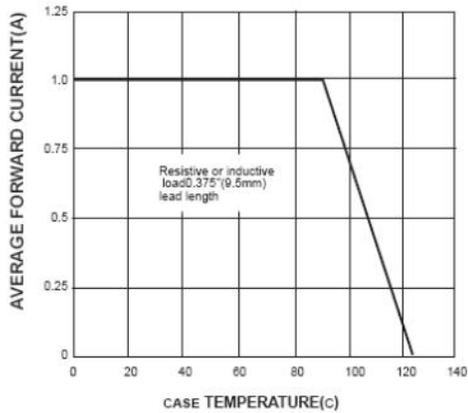


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

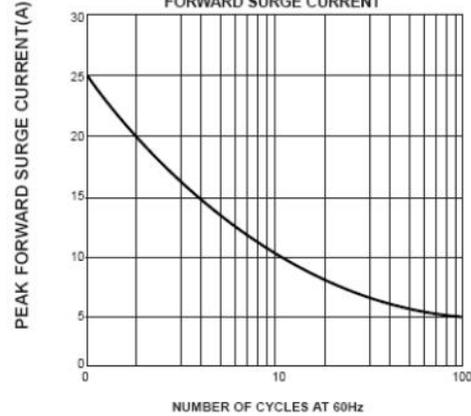


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

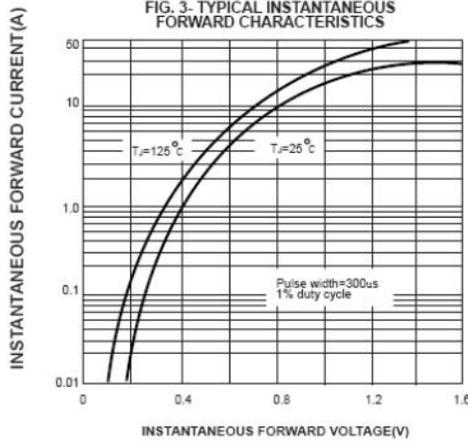


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

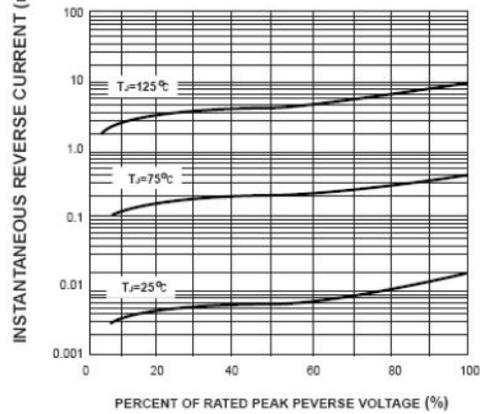


FIG. 5- TYPICAL JUNCTION CAPACITANCE

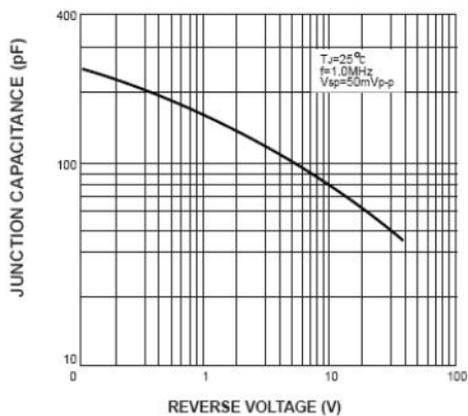
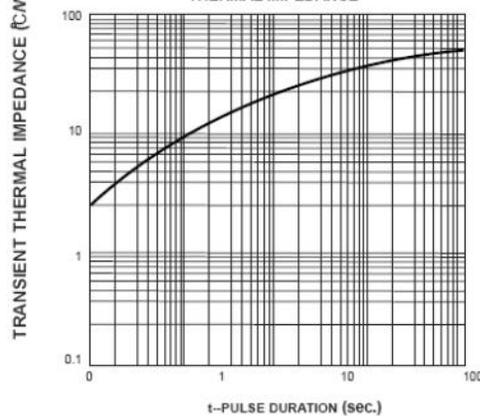
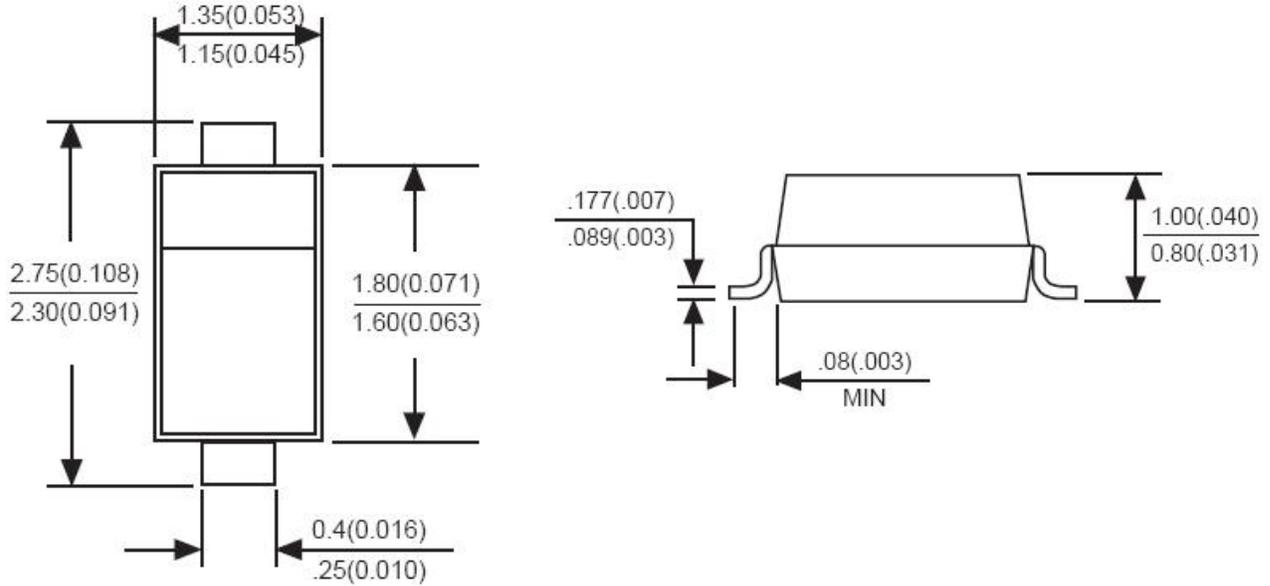


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



Mechanical Dimensions SOD-323(Inches/Millimeters)

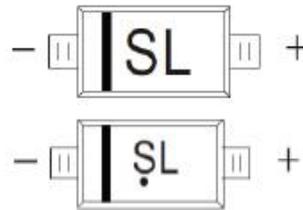


Ordering Information

Device	Package	Shipping
B5819WS	SOD-323	3000pcs / reel
B5819WSTR	SOD-323	3000pcs / reel

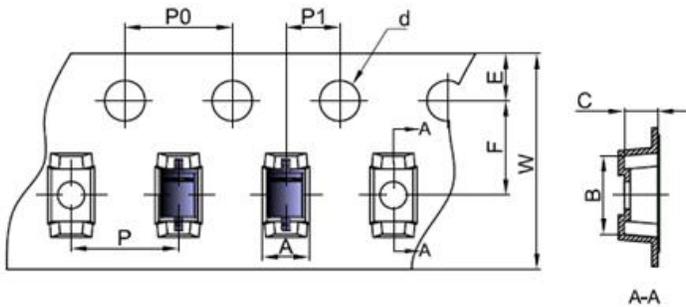
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram



The marking bar indicates the cathode
Solid dot = Green molding compound device, if none, the normal device.

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



B5819WS

Technical Data
Data Sheet N2030, Rev. B



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