



GP
ELECTRONICS

B5819WS

40V-1A Schottky Barrier Diode

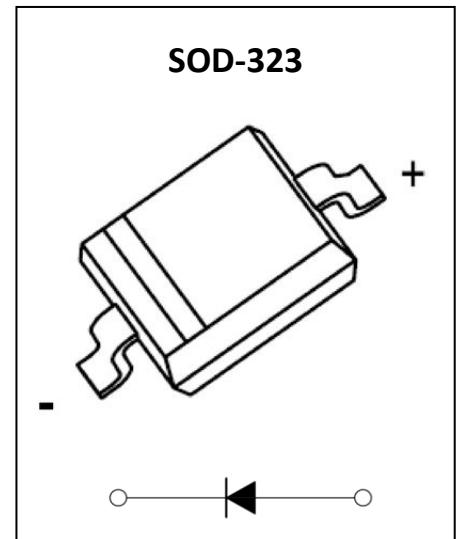
B5819WS Schottky Barrier Diode

Feature

- Small Power Mold Type
- Low VF
- Low IR
- High Reliability

Application

- High Frequency Inverters
- Free Wheeling
- Polarity Protection Applications



MARKING:



ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

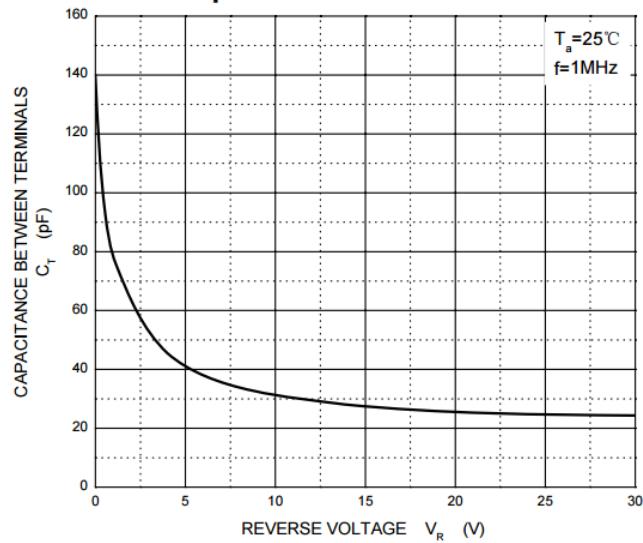
Parameter	Symbol	Value	Unit
DC reverse voltage	V_R	40	V
Mean rectifying current	I_o	1	A
Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	9	A
Power Dissipation	P_D	0.35	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	285	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	125	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~ +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise noted)

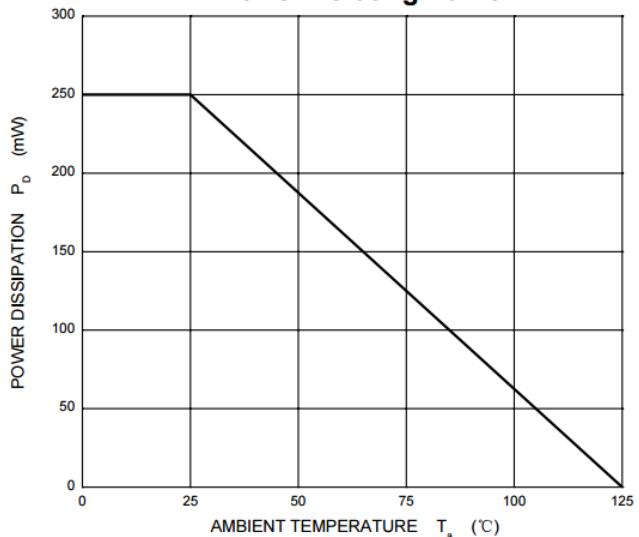
Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Reverse voltage	V_{BR}	$I_R = 250\mu\text{A}$	40	50		V
Forward voltage	V_F	$I_F = 0.5\text{A}$	0	0.44	0.50	V
		$I_F = 1.0\text{A}$	0	0.54	0.58	V
Reverse current	I_R	$V_R = 40\text{V}$		5	30	μA
Diode capacitance	C_D	$VR=4\text{V}, f=1\text{MHz}$		20		pF

Typical Characteristics

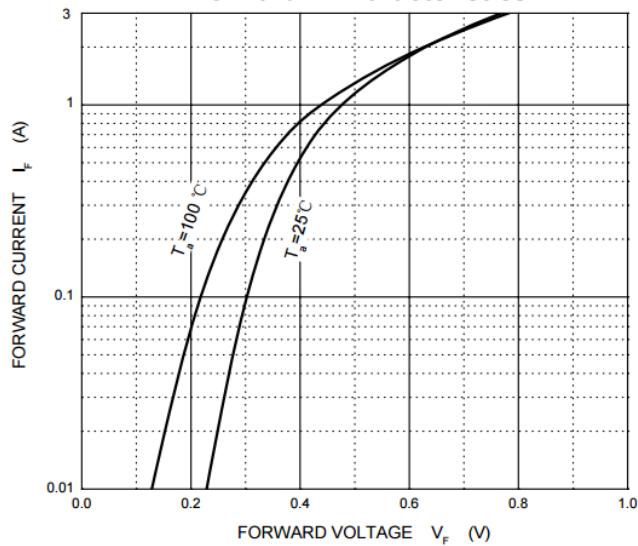
Capacitance Characteristics



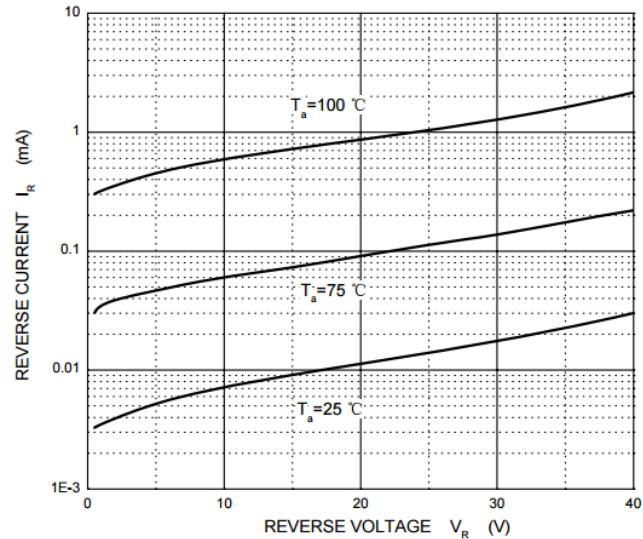
Power Derating Curve

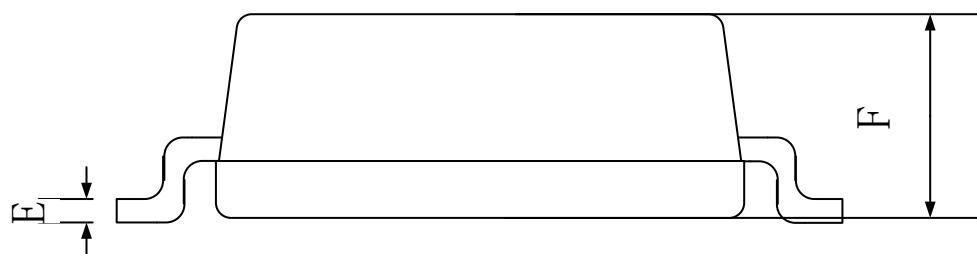
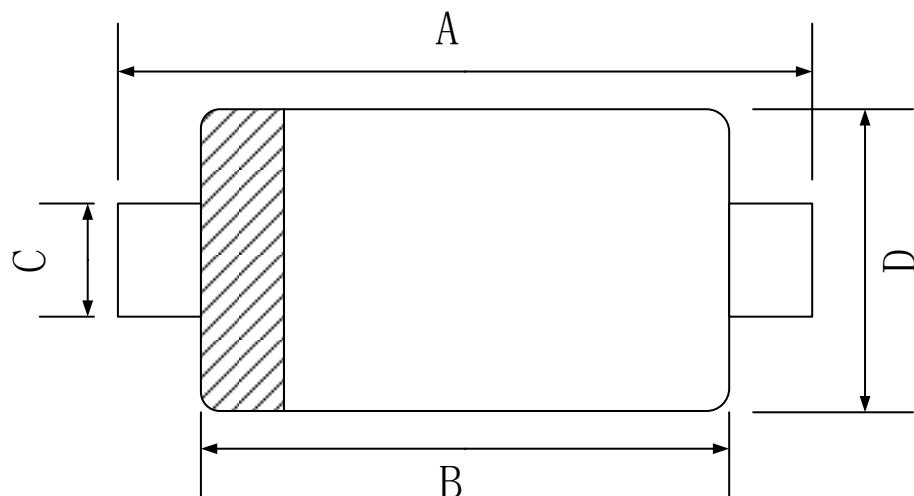


Forward Characteristics

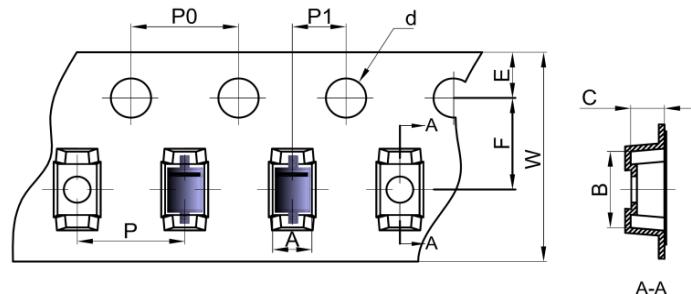


Reverse Characteristics

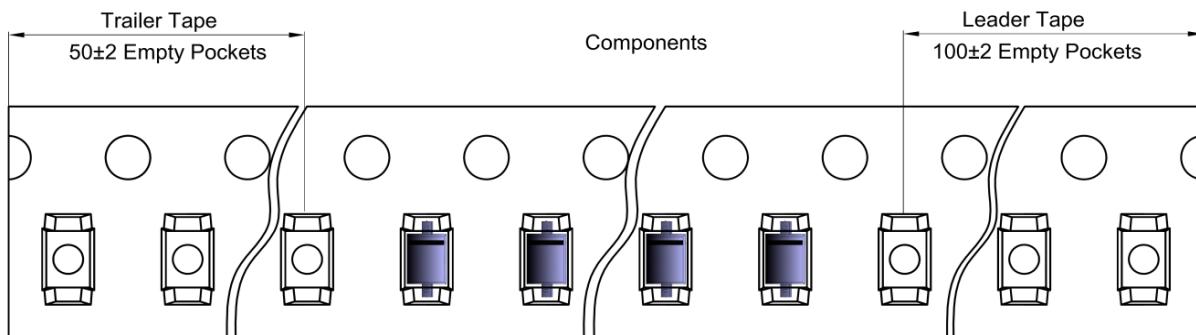
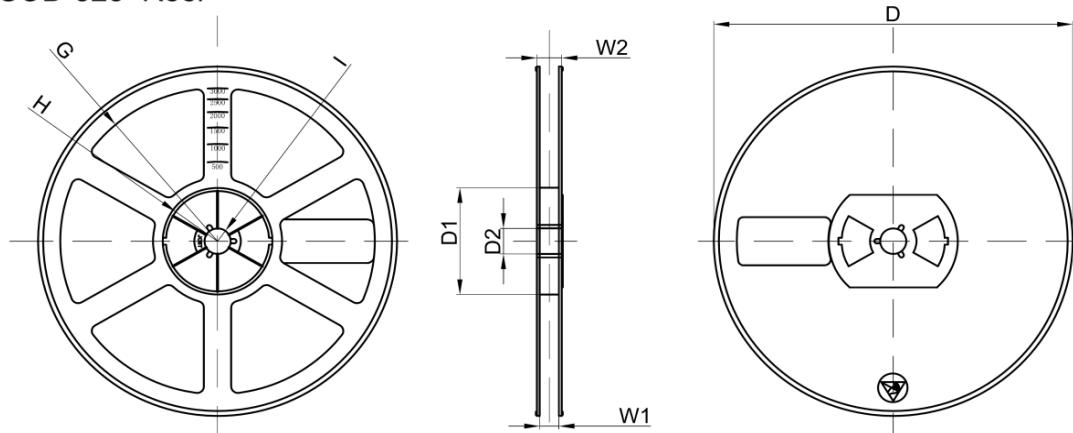


SOD-323 Package Outline Dimensions


Symbol	Dimensions In Millimeters		
	Min.	Typ.	Max.
A	2.30	2.50	2.70
B	1.60	1.70	1.90
C	0.25	0.325	0.40
D	1.15	1.25	1.35
E	0.089	0.095	0.101
F	0.80	0.90	1.00

SOD-323 Package Outline Dimensions
SOD-323 Embossed Carrier Tape


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOD-323	1.48	3.3	1.25	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOD-323 Tape Leader and Trailer

SOD-323 Reel


Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	45,000 pcs	203×203×195	180,000 pcs	438×438×220	

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