

Plastic-Encapsulate Schottky Barrier Diode

SOD-323

Features

- High Current Capability
- Low Forward Voltage Drop
- P/N suffix V means AEC-Q101 qualified, eg.B5817WSV
- P/N suffix V means Halogen-free

Marking: B5817WS: SJ

B5818WS: SK

B5819WS: SL

Mechanical Data

- SOD-323 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any

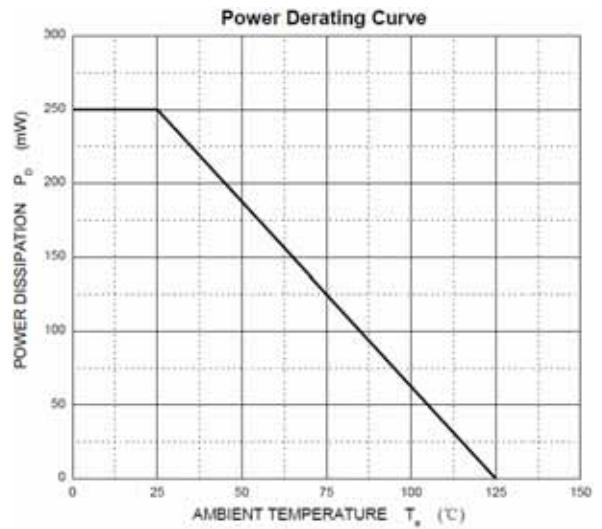
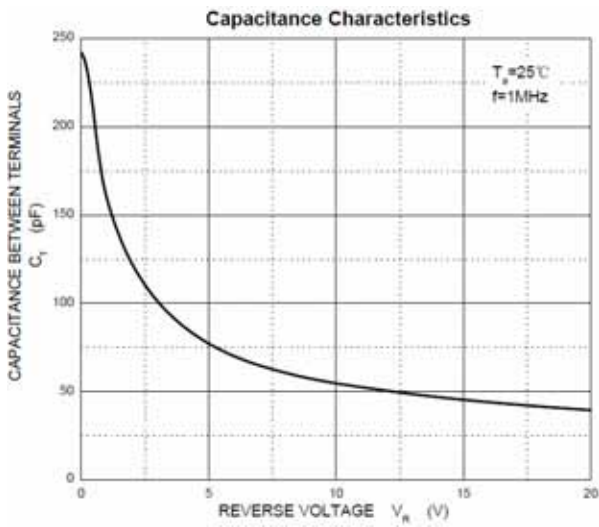
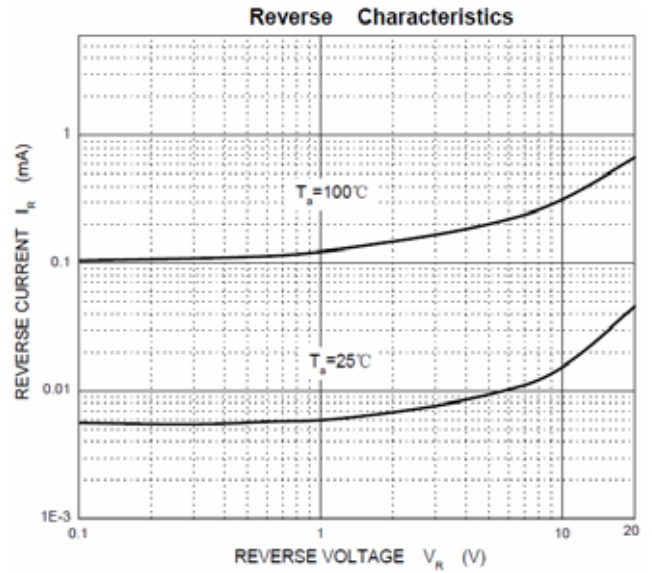
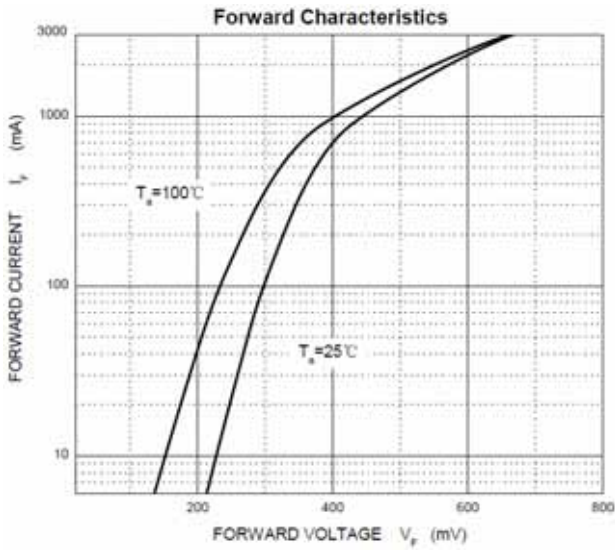
Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

Parameters	Symbol	B5817WS	B5818WS	B5819WS	Unit
Maximum repetitive peak reverse voltage	VRRM	20	30	40	V
Maximum RMS voltage	VRMS	14	21	28	V
Maximum DC blocking voltage	VDC	20	30	40	V
Maximum average forward rectified current	IFM	1.0			A
Peak forward surge current 8.3 ms single half sine-wave	IFSM	9			A
Typical Current Squared Time	I ² T	0.337			A ² S
Typical thermal resistance	R _{θJA}	400			°C/W
Power Dissipation	PD	250			mW
Operating junction temperature	T _j	125			°C
Storage temperature range	TSTG	-50-+150			°C

Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

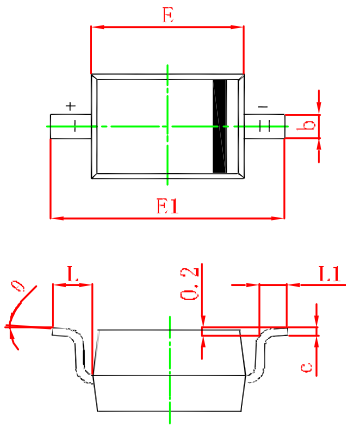
Parameters	Symbol	Test conditions	B5817WS	B5818WS	B5819WS	Unit
Maximum forward voltage	V _F	IF = 1.0A IF = 3.0A	0.450 0.750	0.550 0.875	0.600 0.900	V
Maximum reverse breakdown voltage	V _R	IR=1mA	20	30	40	V
Maximum reverse current	I _R	VR=20V B5817WS VR=30V B5818WS VR=40V B5819WS	1.0			mA
Type junction capacitance	C _j	VR = 4.0V, f = 1MHz	120			pF

RATING AND CHARACTERISTICS CURVES (B5817WS/B5818WS/B5819WS)



SOD-323 PACKAGE OUTLINE Plastic surface mounted package

SOD-323

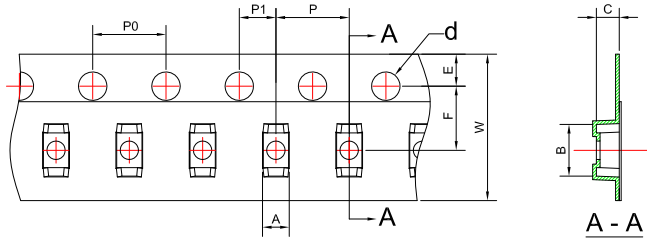


Symbol	Min.(mm)	Max.(mm)
A		1.000
A1	0.000	0.100
A2	0.800	0.900
b	0.250	0.350
c	0.080	0.150
D	1.200	1.400
E	1.600	1.800
E1	2.500	2.700
L	0.475REF	
L1	0.250	0.400
θ	0°	8°

SOD-323 Tape and Reel

SOD-323 Embossed Carrier Tape

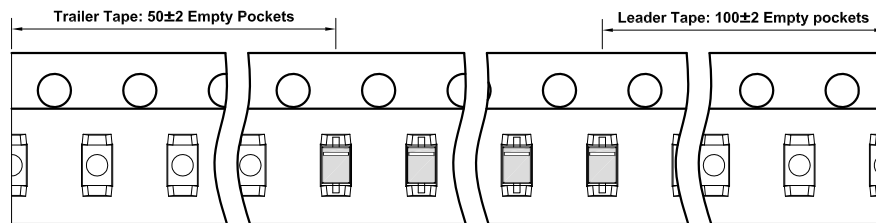
Packaging Description:



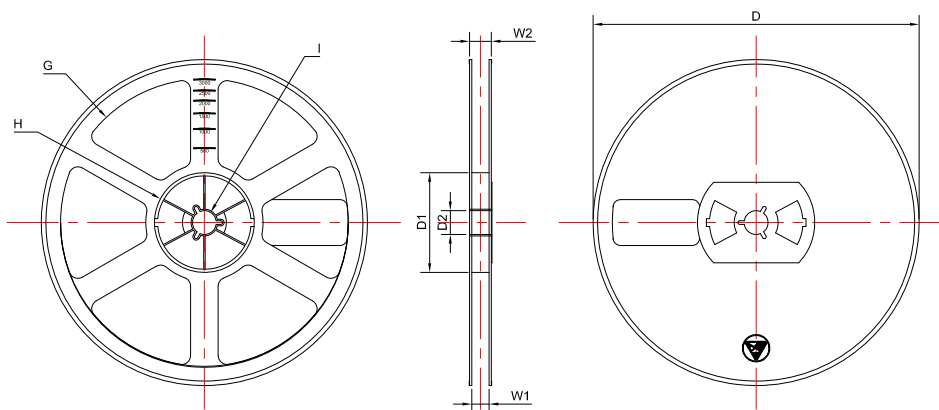
SOD-323 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. The reels are blue in color and made of recyclable plastic.

Dimensions are in millimeter										
Pkg Type	A	B	C	d	E	F	P0	P	P1	W
SOD-323	1.46	2.90	1.25	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00
(Tolerance)	± 0.05	± 0.05	± 0.05	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	+0.3/-0.1

SOD-323 Tape Leader and Trailer



SOD-323 Reel



Unit: mm

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
Tolerance	± 2	± 1	± 1	± 1	± 1	± 1	± 1	± 1

Packaging Quantity

Reel	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)
3,000	7 inch	45,000	210*208*203	180,000	440*440*230

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