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[Vishay Semiconductor/Diodes Division](#)
[BAV19WS-G3-18](#)

For any questions, you can email us directly:

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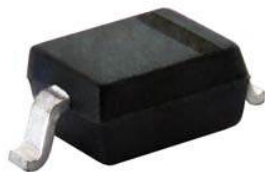


www.vishay.com

BAV19WS-G, BAV20WS-G, BAV21WS-G

Vishay Semiconductors

Small Signal Switching Diodes, High Voltage



MECHANICAL DATA

Case: SOD-323

Weight: approx. 4 mg

Packaging codes/options:

18/10K per 13" reel (8 mm tape), 10K/box

08/3K per 7" reel (8 mm tape), 15K/box

FEATURES

- Silicon epitaxial planar diodes
- For general purpose
- AEC-Q101 qualified
- Base P/N-G3 - green, commercial grade
- Base P/N-HG3 - green, AEC-Q101 qualified (part number available on request)
- Material categorization:
for definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT
HALOGEN
FREE
GREEN
(5-2008)

PARTS TABLE					
PART	TYPE DIFFERENTIATION	ORDERING CODE	TYPE MARKING	INTERNAL CONSTRUCTION	REMARKS
BAV19WS-G	$V_R = 100\text{ V}$	BAV19WS-G3-08 or BAV19WS-G3-18	AS	Single diode	Tape and reel
BAV20WS-G	$V_R = 150\text{ V}$	BAV20WS-G3-08 or BAV20WS-G3-18	AT	Single diode	Tape and reel
BAV21WS-G	$V_R = 200\text{ V}$	BAV21WS-G3-08 or BAV21WS-G3-18	AU	Single diode	Tape and reel

ABSOLUTE MAXIMUM RATINGS ($T_{amb} = 25\text{ }^\circ\text{C}$, unless otherwise specified)					
PARAMETER	TEST CONDITION	SYMBOL	SYMBOL	VALUE	UNIT
Continuous reverse voltage		BAV19WS-G	V_R	100	V
		BAV20WS-G	V_R	150	V
		BAV21WS-G	V_R	200	V
Repetitive peak reverse voltage		BAV19WS-G	V_{RRM}	120	V
		BAV20WS-G	V_{RRM}	200	V
		BAV21WS-G	V_{RRM}	250	V
Forward continuous current ⁽¹⁾			I_F	250	mA
Rectified current (average) half wave rectification with resistive load ⁽¹⁾			$I_{F(AV)}$	200	mA
Repetitive peak forward current ⁽¹⁾	$f \geq 50\text{ Hz}, \theta = 180^\circ$		I_{FRM}	625	mA
Surge forward current	$t < 1\text{ s}, T_J = 25\text{ }^\circ\text{C}$		I_{FSM}	1	A
Power dissipation			P_{tot}	200	mW

Note

⁽¹⁾ Valid provided that leads are kept at ambient temperature

THERMAL CHARACTERISTICS ($T_{amb} = 25\text{ }^\circ\text{C}$, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to ambient air		R_{thJA}	625	K/W
Thermal resistance junction to lead		R_{thJL}	450	K/W
Junction temperature		T_j	150	$^\circ\text{C}$
Storage temperature range		T_{stg}	-65 to +150	$^\circ\text{C}$
Operating temperature range		T_{op}	-55 to +150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)							
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward voltage	I _F = 100 mA		V _F			1	V
	I _F = 200 mA		V _F			1.25	V
Reverse leakage current	V _R = 100 V	BAV19WS-G	I _R			100	nA
	V _R = 100 V, T _j = 100 °C	BAV19WS-G	I _R			15	μA
	V _R = 150 V	BAV20WS-G	I _R			100	nA
	V _R = 150 V, T _j = 100 °C	BAV20WS-G	I _R			15	μA
	V _R = 200 V	BAV21WS-G	I _R			100	nA
	V _R = 200 V, T _j = 100 °C	BAV21WS-G	I _R			15	μA
Dynamic Forward resistance	I _F = 10 mA		r _f		5		Ω
Diode capacitance	V _R = 0 V, f = 1 MHz		C _D			1.5	pF
Reverse recovery time	I _F = 30 mA, I _R = 30 mA, i _R = 3 mA, R _L = 100 Ω		t _{rr}			50	ns

TYPICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

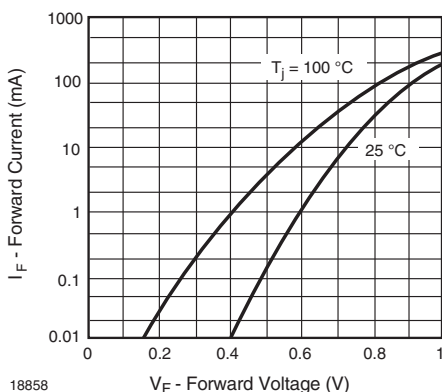


Fig. 1 - Forward Current vs. Forward Voltage

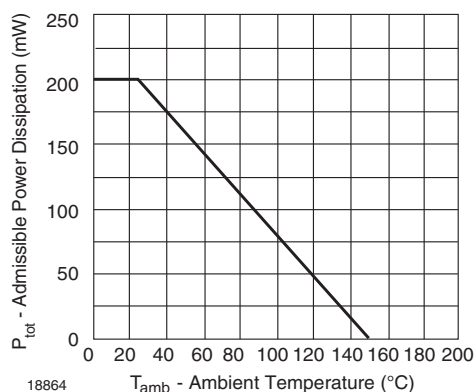


Fig. 3 - Admissible Power Dissipation vs. Ambient Temperature

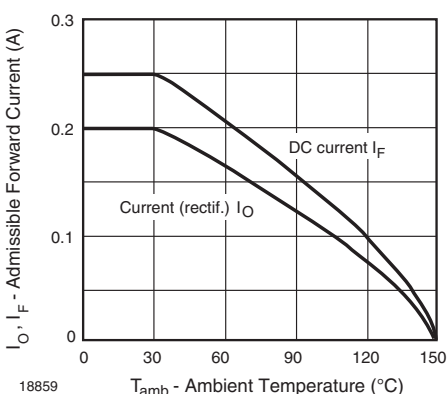


Fig. 2 - Admissible Forward Current vs. Ambient Temperature

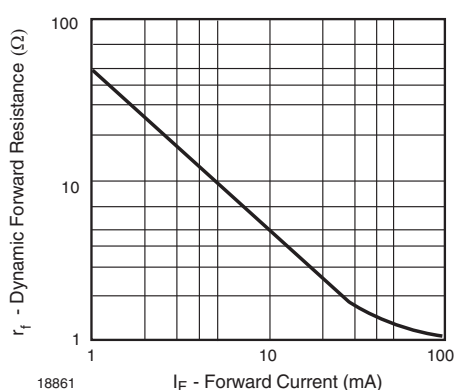


Fig. 4 - Dynamic Forward Resistance vs. Forward Current



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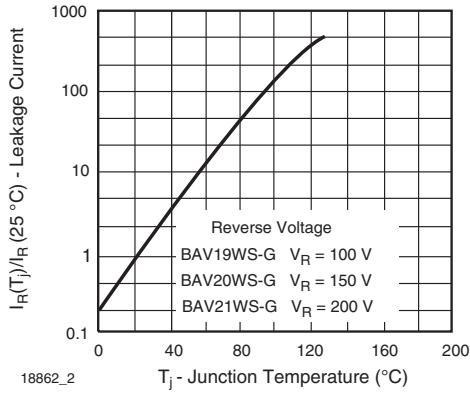


Fig. 5 - Leakage Current vs. Junction Temperature

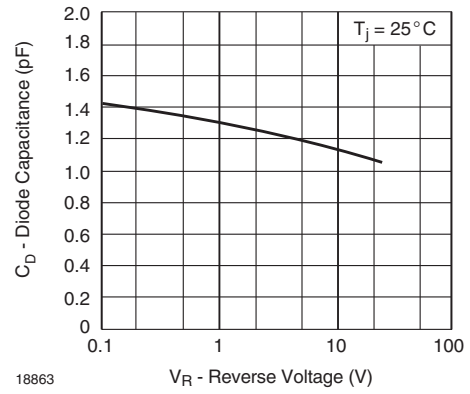
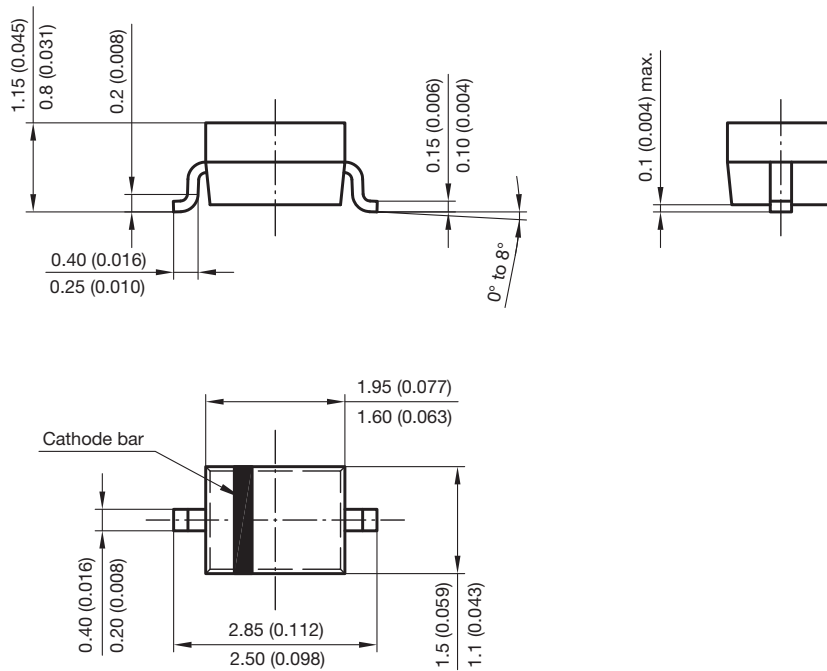
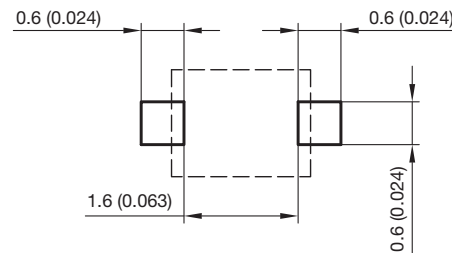


Fig. 6 - Capacitance vs. Reverse Voltage

PACKAGE DIMENSIONS in millimeters (inches): **SOD-323**



Foot print recommendation:



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 17443



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