

BAV19WS~BAV21WS

Plastic-Encapsulate Switching Diodes

ROHS



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Features

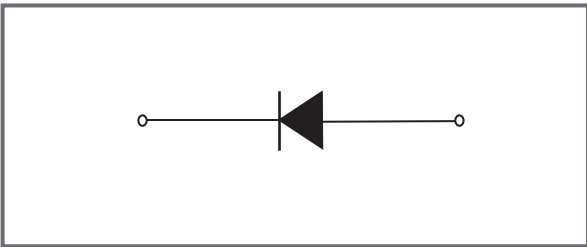
- ◆ Fast Switching Speed
- ◆ Low Reverse Current
- ◆ For General Purpose Switching Applications
- ◆ Surface Mount Package Ideally Suited for Automatic Insertion

Mechanical Data

- ◆ Case: SOD-323
- ◆ Molding Compound Flammability Rating : UL 94V-O
- ◆ Polarity: Color Band Denotes Cathode End
- ◆ Quantity Per Reel : 3,000pcs
- ◆ Device Marking: BAV19WS : A8
BAV20WS : T2
BAV21WS : T3



Functional Diagram



Mechanical Characteristics

Parameter	Symbol	BAV19WS	BAV20WS	BAV21WS	Units
Repetitive Peak Reverse Voltage	VRRM	100	150	200	V
Reverse Voltage	VR	100	150	200	V
Average Rectified Output Current	Io	0.2			A
Non-Repetitive Peak Forward Surge Current @t=8.3ms	IFSM	2.0			A
Power Dissipation	PD	0.25			W
Thermal Resistance Junction to Ambient	R _{θJA}	500			°C/W
Junction Temperature Range	TJ	-55~+150			°C
Storage Temperature Range	Tstg	-55~+150			°C

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

Parameter	Symbol	Test Conditions		Value		Units
				Min.	Max.	
Reverse Current	I _R	V _R =100V	BAV19WS	-	0.1	μA
		V _R =150V	BAV20WS	-	0.1	
		V _R =200V	BAV21WS	-	0.1	
Forward Voltage	V _F	I _F =100mA		-	1.0	V
		I _F =200mA		-	1.25	
Total Capacitance	C _{tot}	V _R =0V, f=1MHz			5.0	pF
Reverse Recovery Time	t _{rr}	I _F =I _R =30mA, I _{rr} =0.1X I _R , R _L =100Ω			50	nS

Electrical Characteristics Curves

Fig.1 Forward Characteristics

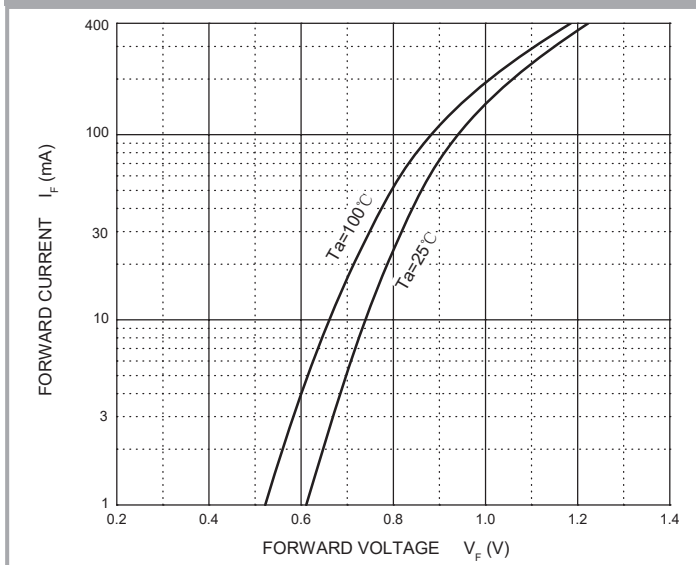


Fig. 2 Reverse Characteristics

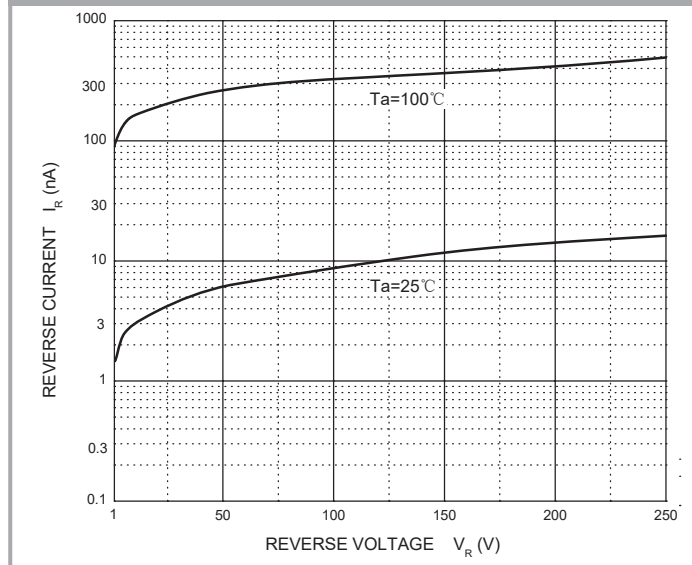


Fig.3 Capacitance Characteristics

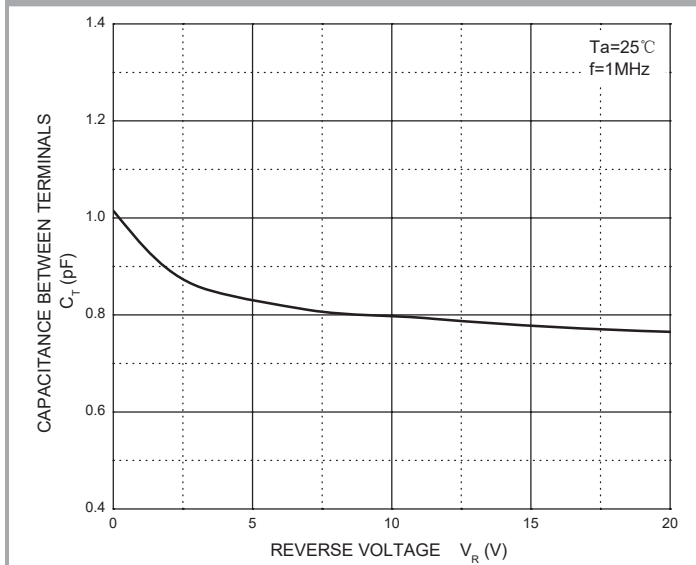
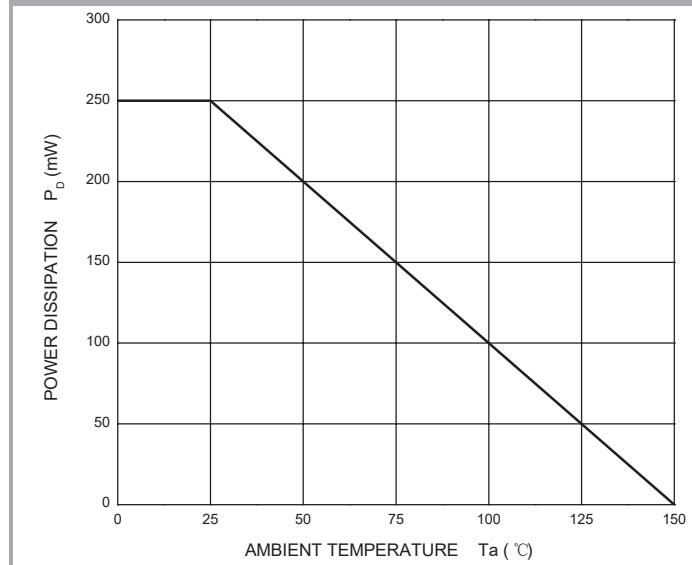
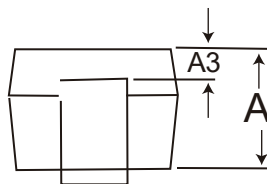
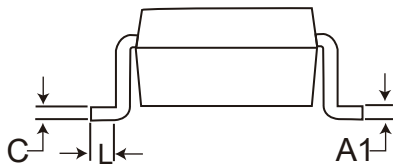
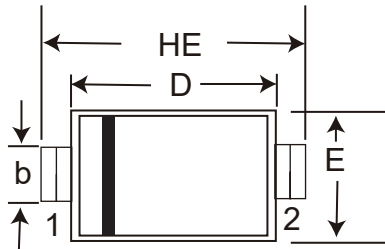


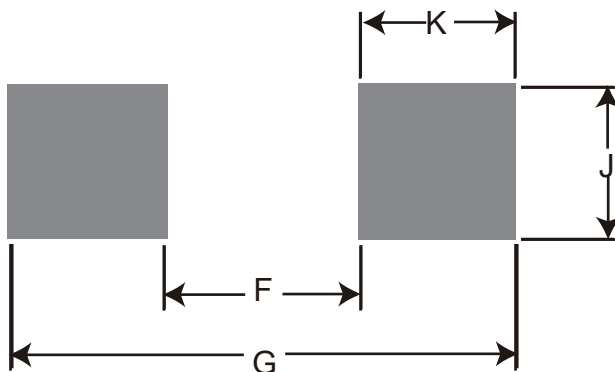
Fig. 4 Power Derating Curve



SOD-323 Package Outline & Dimensions



Soldering Footprint



Symbol	Millimeters			Inches		
	Min.	Nom.	Max.	Min.	Nom.	Max.
A	0.80	0.90	1.00	0.031	0.035	0.040
A1	0.00	0.05	0.10	0.000	0.002	0.004
A3	0.15REF			0.006REF		
b	0.25	0.32	0.40	0.010	0.012	0.016
c	0.089	0.12	0.177	0.003	0.005	0.007
D	1.60	1.70	1.80	0.062	0.066	0.070
E	1.15	1.25	1.35	0.045	0.049	0.053
L	0.08			0.003		
HE	2.30	2.50	2.70	0.090	0.098	0.105

Symbol	Millimeters	Inches
F	1.60	0.063
G	2.85	0.112
J	0.83	0.033
K	0.63	0.025

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