

Features

- Halogen free available upon request by adding suffix "-HF"
- Silicon Epitaxial Planar Diodes
- For General Purpose
- This diode is also available in other case.
- Lead Free Finish/RoHS Compliant("P" Suffix designates RoHS Compliant. See ordering information)

Mechanical Data

- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking code: BAV19WS=A8
BAV20WS=T2
BAV21WS=T3

Maximum Ratings

Symbol	Parameters	Rating	Unit
V_R	Continuous Reverse Voltage	BAV19WS 100 BAV20WS 150 BAV21WS 200	V
	Repetitive Peak Reverse Voltage	BAV19WS 120 BAV20WS 200 BAV21WS 250	V
	Non-Repetitive Peak Forward Surge Current @ $t=1\mu s$ @ $t=1s$	2.5 0.5	A
I_{FM}	Forward Continuous Current (Note1)	400	mA
I_O	Average Rectified Out put Current (Note1)	200	mA
I_{FRM}	Repetitive Peak Forward Current at $f>50Hz$, $T_{amb}=25^\circ C^{(1)}$	625	mA
P_{tot}	Power Dissipation at $T_{amb}=25^\circ C^{(1)}$	250	mW
R_{thJA}	Thermal Resistance Junction to Ambient Air	500	KW
T_J	Operating Junction Temperature	-65 to +150	$^\circ C$
T_{STG}	Storage Temperature	-65 to +150	$^\circ C$

Electrical Characteristics @ 25°C Unless Otherwise Specified

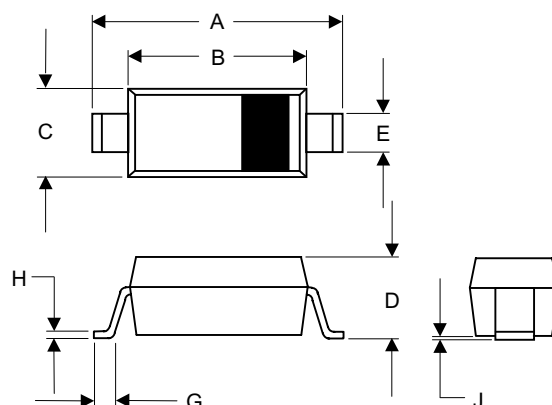
Symbol	Parameter	Min	Typ	Max	Units
V_F	Forward Voltage ($I_F=100mA$) ($I_F=200mA$)	---	---	1.00 1.25	V
I_R	Leakage Current ($V_R=100V$)	---	---	100	nA
	($V_R=100V$, $T_J=100^\circ C$)	---	---	15	uA
	($V_R=150V$)	---	---	100	nA
	($V_R=150V$, $T_J=100^\circ C$)	---	---	15	uA
	($V_R=200V$)	---	---	100	nA
	($V_R=200V$, $T_J=100^\circ C$)	---	---	15	uA
C_{tot}	Capacitance ($V_R=0$, $f=1.0MHz$)	---	1.5	---	pF
t_{rr}	Reverse Recovery Time ($I_F=30mA$, $I_R=30mA$) ($I_{rr}=3.0mA$, $R_L=100\Omega$)	---	---	50	ns

Notes: 1. Valid provided that leads are kept at ambient temperature

BAV19WS THRU BAV21WS

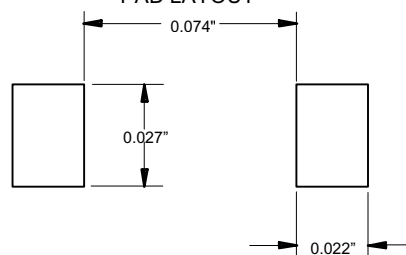
250mW
Small Signal
Diodes
120 to 250 Volts

SOD-323



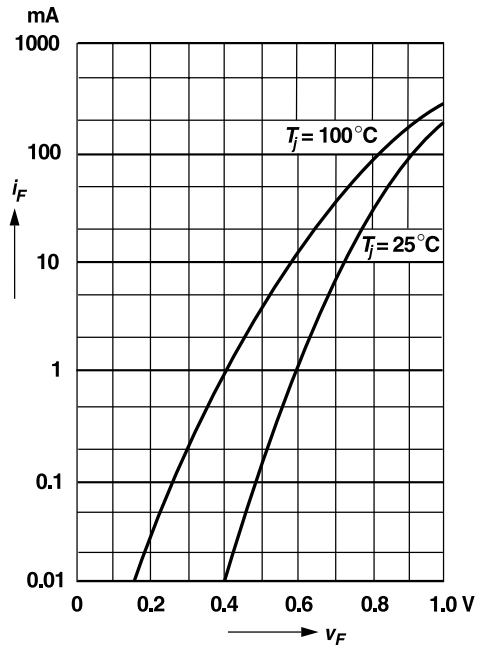
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.090	.107	2.30	2.70	
B	.063	.071	1.60	1.80	
C	.045	.053	1.15	1.35	
D	.031	.045	0.80	1.15	
E	.010	.016	0.25	0.40	
G	.004	.018	0.10	0.45	
H	.004	.010	0.10	0.25	
J	----	.006	----	0.15	

SUGGESTED SOLDER PAD LAYOUT



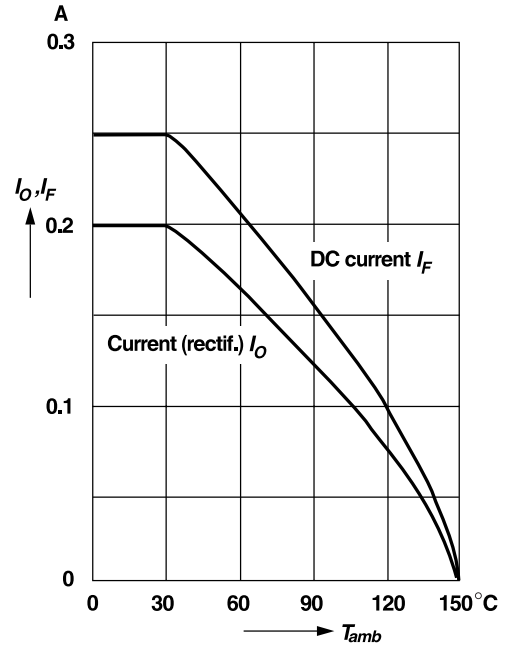
BAV19WS thru BAV21WS

Forward characteristics



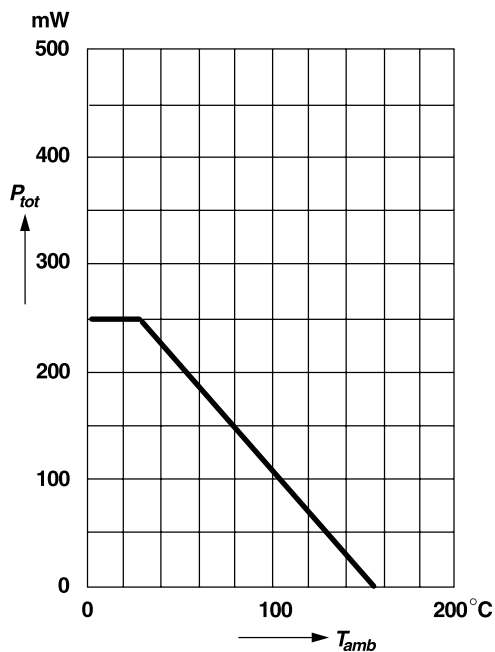
Admissible forward current versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

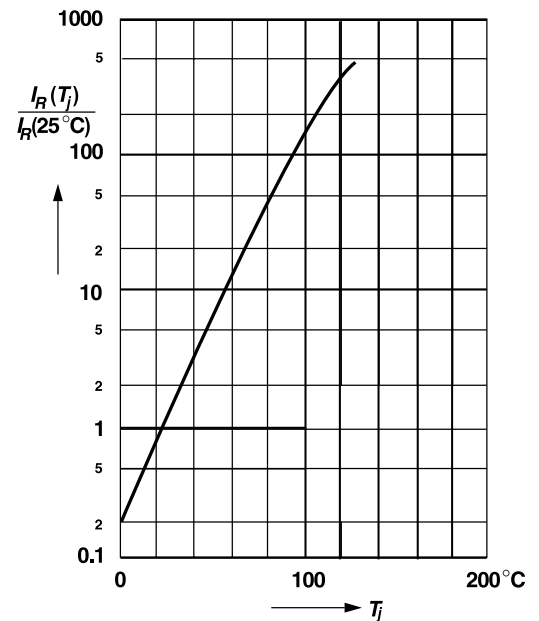


Admissible power dissipation versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

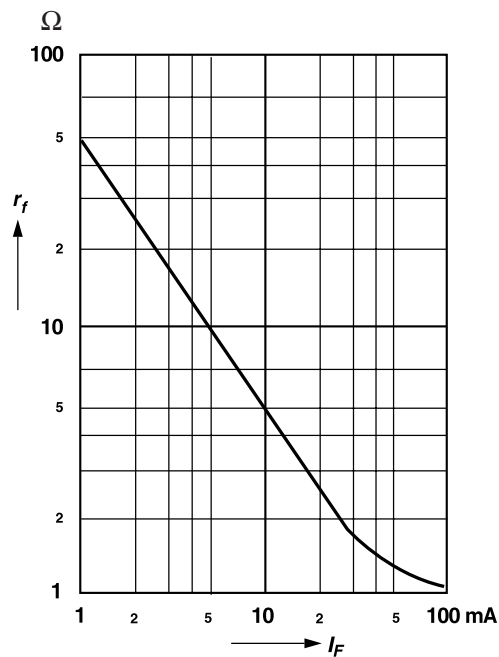


Leakage current versus junction temperature

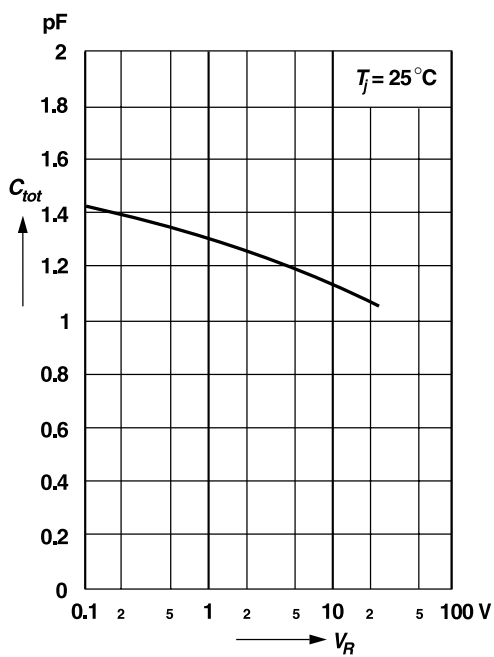


BAV19WS thru BAV21WS

Dynamic forward resistance
versus forward current



Capacitance
versus reverse voltage





TM

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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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