

BAV19WS THRU BAV21WS

**250mW
Small Signal
Diodes
120 to 250 Volts**

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

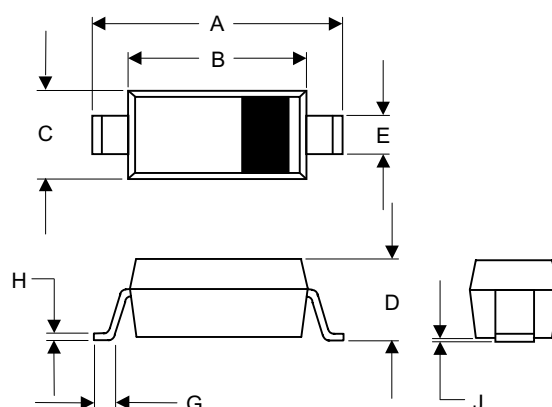
Symbol	Parameters	Rating	Unit	
V_R	Continuous Reverse Voltage	BAV19WS BAV20WS BAV21WS	100 150 200	V
	Repetitive Peak Reverse Voltage	BAV19WS BAV20WS BAV21WS	120 200 250	
	Non-Repetitive Peak Forward Surge Current @ $t=1\mu s$ @ $t=1s$	2.5 0.5	A	
I_{FM}	Forward Continuous Current (Note1)	400	mA	
I_o	Average 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	V
		---	---	1.25	
I_R	Leakage Current ($V_R=100V$) ($V_R=100V, T_j=100^{\circ}C$) ($V_R=150V$) ($V_R=150V, T_j=100^{\circ}C$) ($V_R=200V$) ($V_R=200V, T_j=100^{\circ}C$)	BAV19WS	---	100	nA
		BAV19WS	---	15	uA
		BAV20WS	---	100	nA
		BAV20WS	---	15	uA
		BAV21WS	---	100	nA
		BAV21WS	---	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

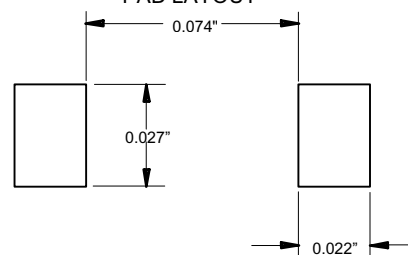
Notes: 1. Valid provided that leads are kept at ambient temperature

SOD-323



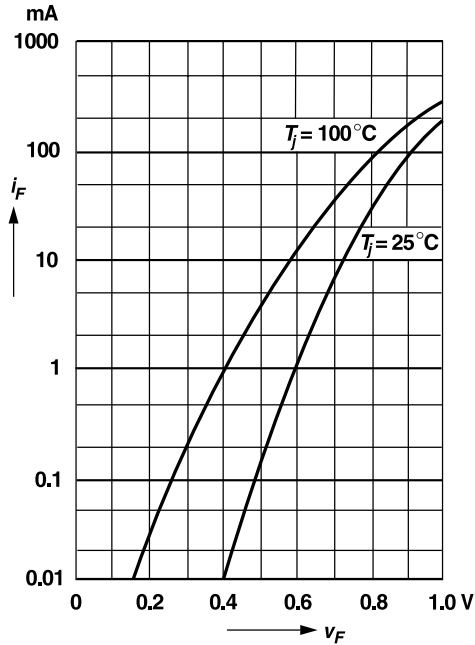
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.090	.107	2.30	2.70	
B	.063	.071	1.60	1.80	
C	.045	.053	1.15	1.35	
D	.031	.045	0.80	1.15	
E	.010	.016	0.25	0.40	
G	.004	.018	0.10	0.45	
H	.004	.010	0.10	0.25	
J	----	.006	----	0.15	

SUGGESTED SOLDER PAD LAYOUT



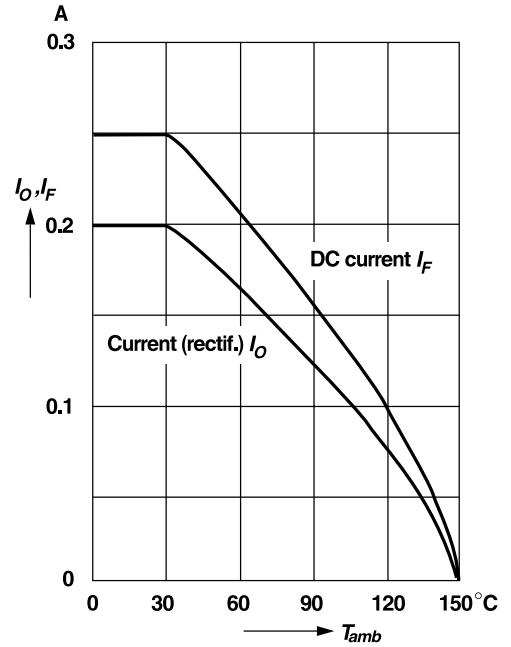
BAV19WS thru BAV21WS

Forward characteristics



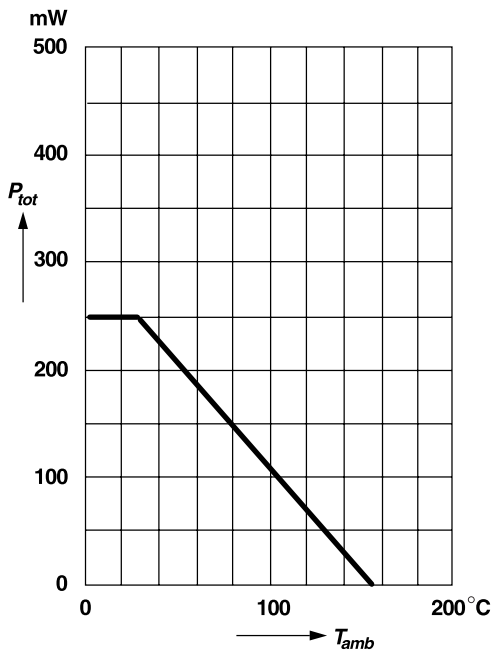
Admissible forward current versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

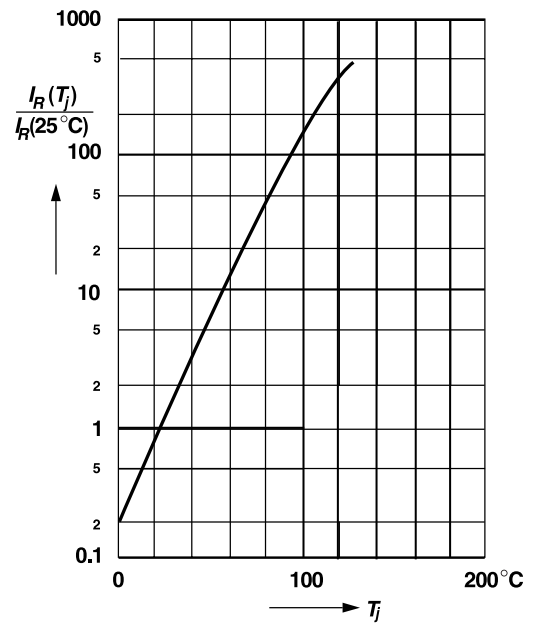


Admissible power dissipation versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

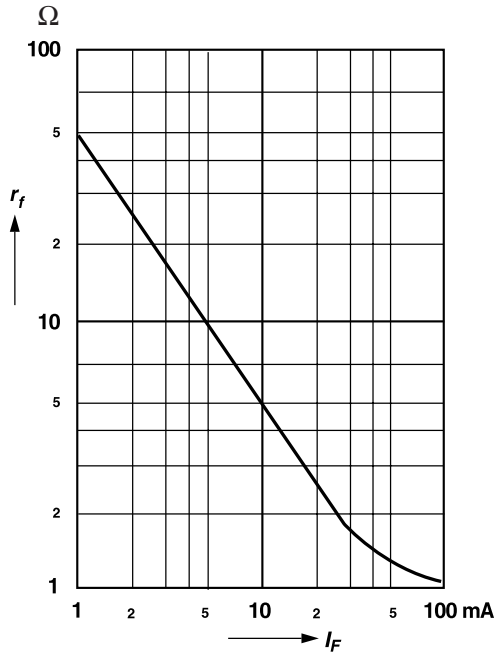


Leakage current versus junction temperature

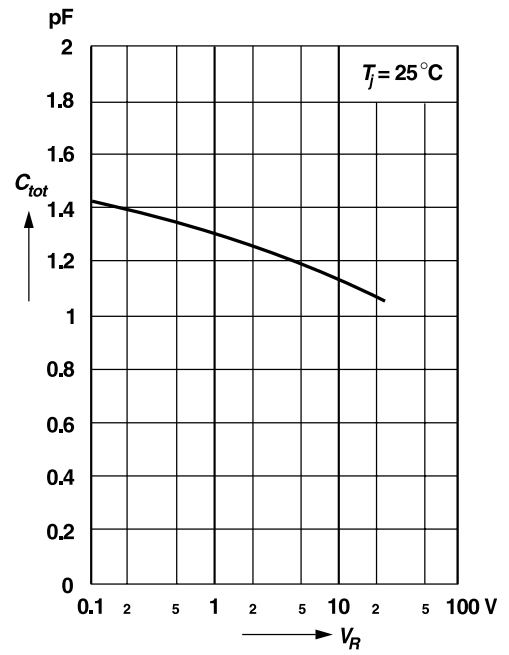


BAV19WS thru BAV21WS

Dynamic forward resistance
versus forward current



Capacitance
versus reverse voltage





Micro Commercial Components

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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