

BAV19W THRU BAV21W

**410mW
Small Signal
Diodes
120 to 250 Volts**

Features

- Silicon Epitaxial Planar Diodes
- For General Purpose
- This diode is also available in other case.
- Halogen free available upon request by adding suffix "-HF"
- 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: BAV19W=A8
BAV20W=T2 or A80
BAV21W=T3 or A82

Maximum Ratings

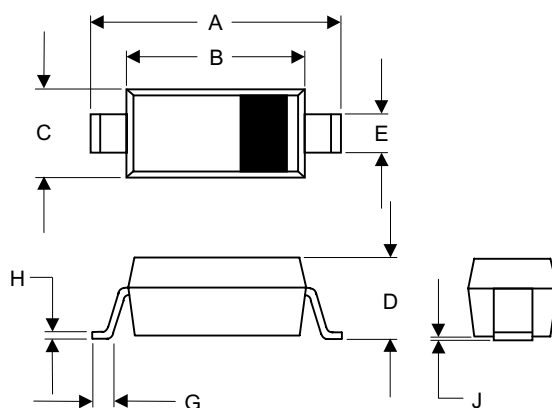
Symbol	Rating	Rating	Unit
V_R	Continuous Reverse Voltage	BAV19W 100 BAV20W 150 BAV21W 200	V
V_{RRM}	Repetitive Peak Reverse Voltage	BAV19W 120 BAV20W 200 BAV21W 250	V
I_F	Forward DC Current at $T_{amb}=25^{\circ}C^{(1)}$	250	mA
$I_{F(AV)}$	Rectified Current (Average) Half Wave Rectification with Resist. Load at $T_{amb}=25^{\circ}C^{(1)}$	200	mA
I_{FRM}	Repetitive Peak Forward Current at $f>50Hz$, $T_{amb}=25^{\circ}C^{(1)}$	625	mA
I_{FSM}	Surge Forward Current at $t<1s$, $T_j=25^{\circ}C$	1.0	A
P_{tot}	Power Dissipation at $T_{amb}=25^{\circ}C^{(1)}$	410	mW
R_{JA}	Thermal Resistance Junction to Ambient Air	305	$^{\circ}C/W$
T_J	Junction Temperature	-55 to +150	$^{\circ}C$
T_{STG}	Storage Temperature	-55 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 ($V_R=100V$) ($V_R=100V$, $T_j=100^{\circ}C$) ($V_R=150V$) ($V_R=150V$, $T_j=100^{\circ}C$) ($V_R=200V$) ($V_R=200V$, $T_j=100^{\circ}C$)	---	---	100 15 100 15 100 15	nA uA nA uA nA uA
r_f	Dynamic Forward Resistance ($I_F=10mA$)	---	5.0	---	OHM
C_{tot}	Capacitance ($V_R=0$, $f=1.0MHz$)	---	1.5	---	pF
t_{rr}	Reverse Recovery Time ($I_F=30mA$, $I_R=30mA$) ($I_{rr}=3.0mA$, $R_f=100OHMS$)	---	---	50	ns

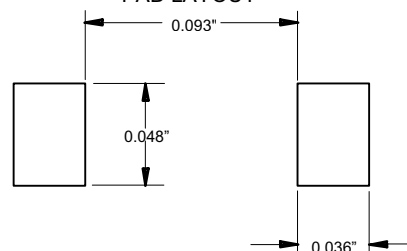
Notes: 1. Valid provided that leads are kept at ambient temperature

SOD123



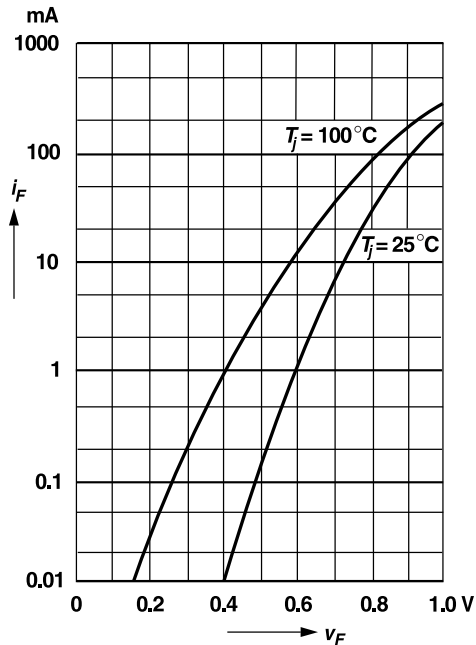
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	----	.053	----	1.35	
E	.012	.031	0.30	.78	
G	.006	----	0.15	----	
H	----	.01	----	.25	
J	----	.006	----	.15	

SUGGESTED SOLDER PAD LAYOUT



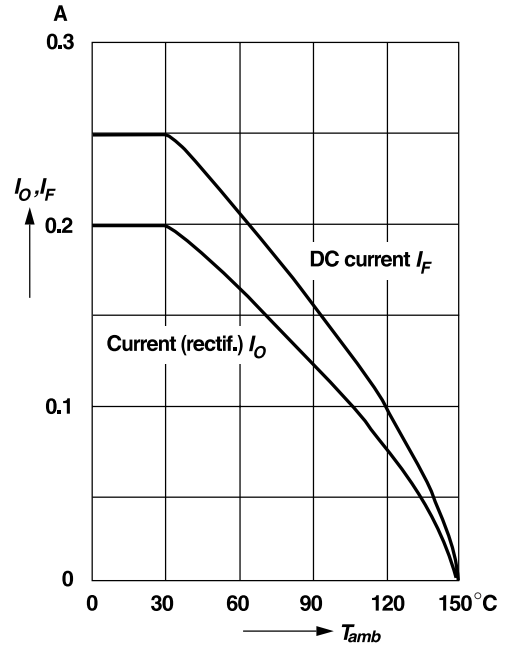
BAV19W thru BAV21W

Forward characteristics



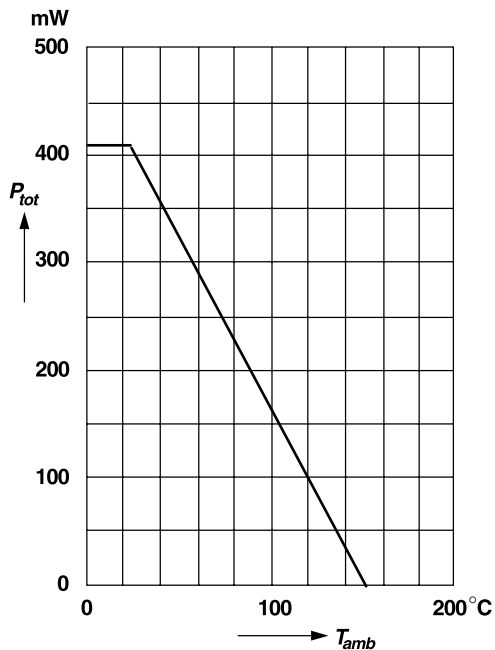
Admissible forward current versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

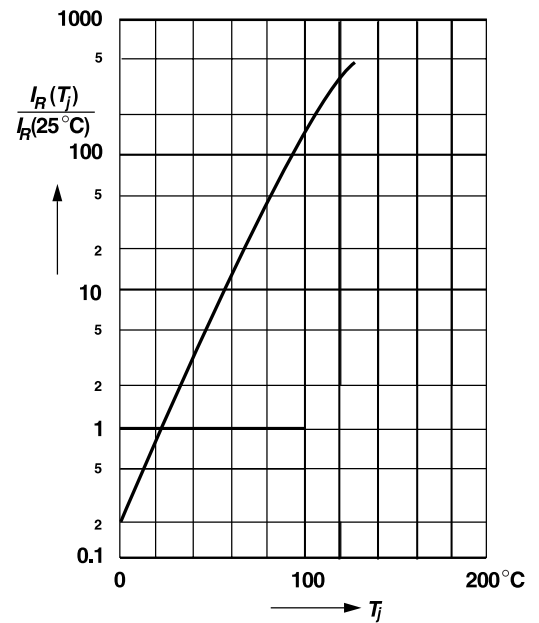


Admissible power dissipation versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

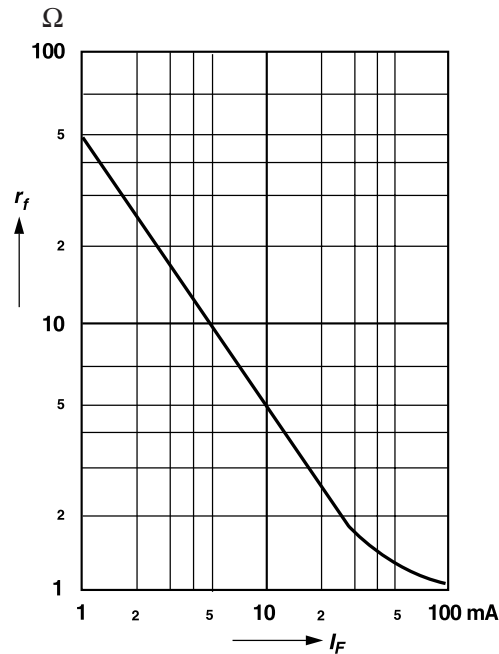


Leakage current versus junction temperature

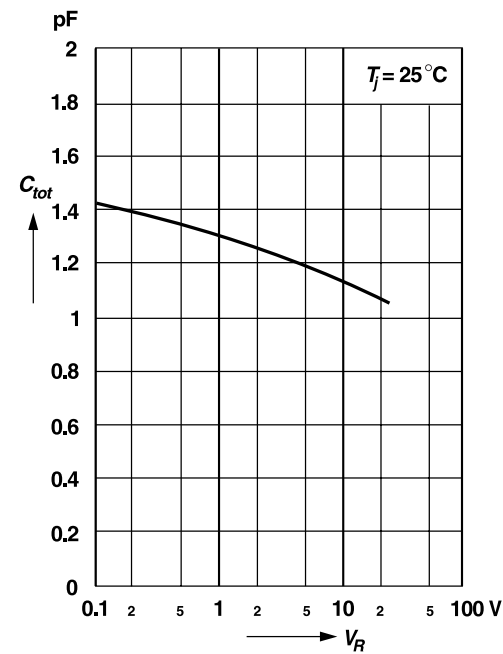


BAV19W thru BAV21W

Dynamic forward resistance
versus forward current



Capacitance
versus reverse voltage



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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