



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.
- 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

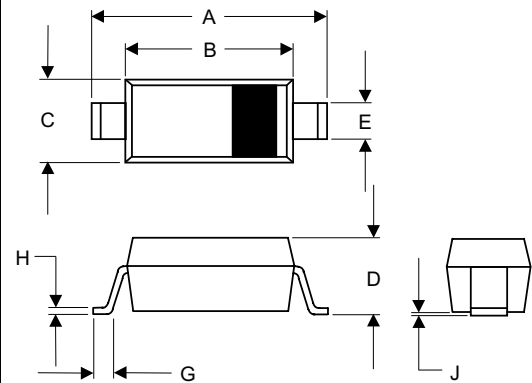
Symbol	Rating	Rating	Unit	
V_R	Continuous Reverse Voltage	BAV19W BAV20W BAV21W	100 150 200	V
	Repetitive Peak Reverse Voltage	BAV19W	120	V
		BAV20W	200	
BAV21W		250		
I_F	Forward DC Current at $T_{amb}=25^\circ C^{(1)}$		250	mA
$I_{F(AV)}$	Rectified Current (Average) Half Wave Rectification with Resist. Load at $T_{amb}=25^\circ C^{(1)}$		200	mA
	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		375	mW
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	V
		---	---	1.25	
I_R	Leakage Current ($V_R=100V$) ($V_R=100V$, $T_j=100^\circ C$) ($V_R=150V$) ($V_R=150V$, $T_j=100^\circ C$) ($V_R=200V$) ($V_R=200V$, $T_j=100^\circ C$)	BAV19W	---	100	nA
		BAV19W	---	15	uA
		BAV20W	---	100	nA
		BAV20W	---	15	uA
		BAV21W	---	100	nA
		BAV21W	---	15	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

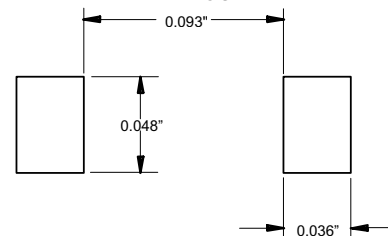
Notes: 1. Valid provided that leads are kept at ambient temperature

SOD123



DIM	DIMENSIONS				NOTE
	INCHES		MM		
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

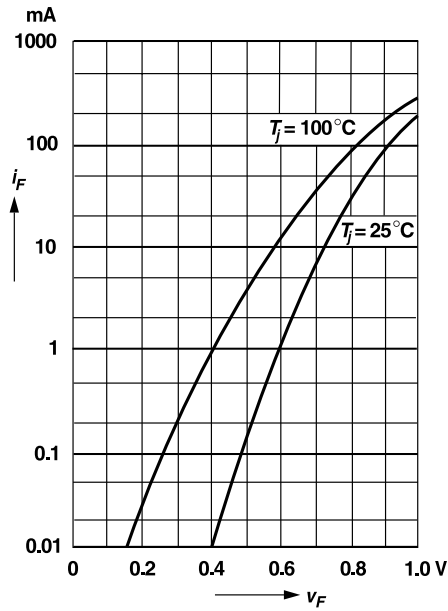


BAV19W thru BAV21W



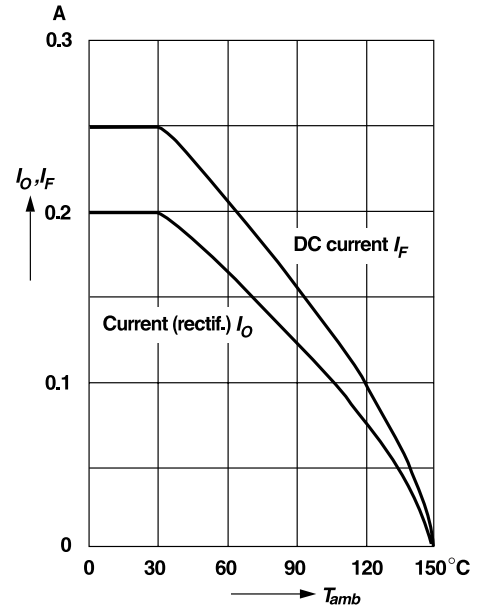
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Forward characteristics



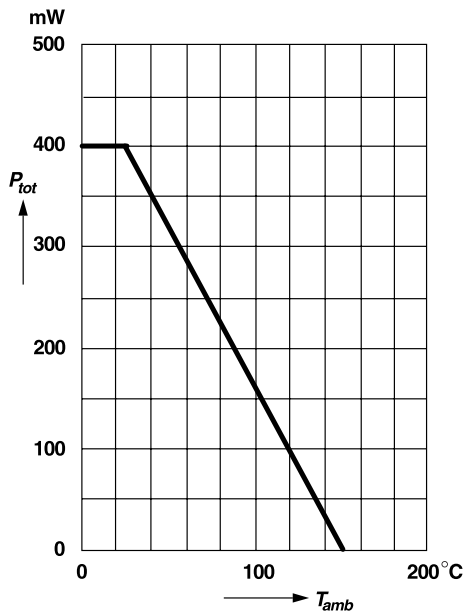
Admissible forward current versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

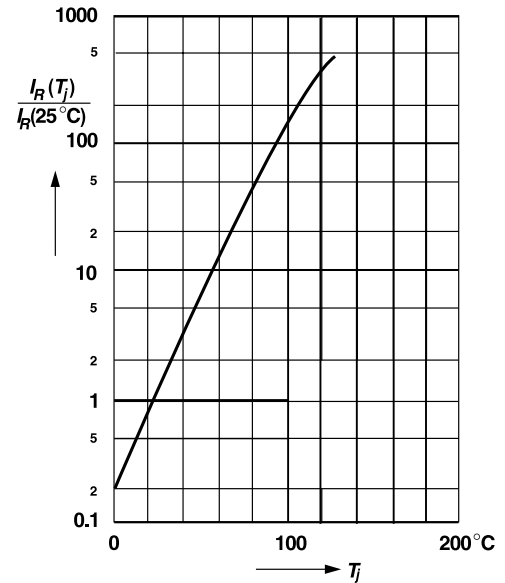


Admissible power dissipation versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

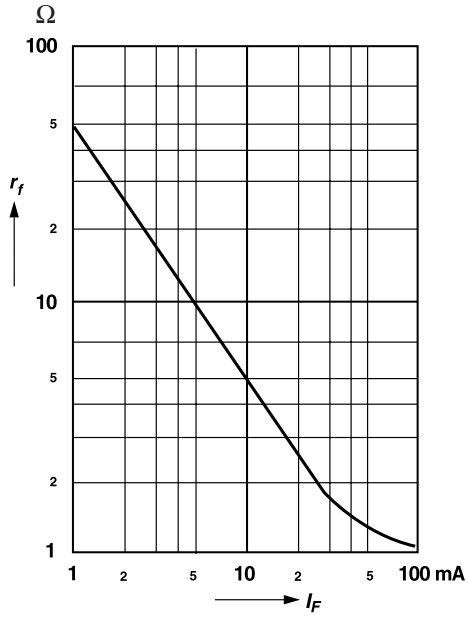


Leakage current versus junction temperature

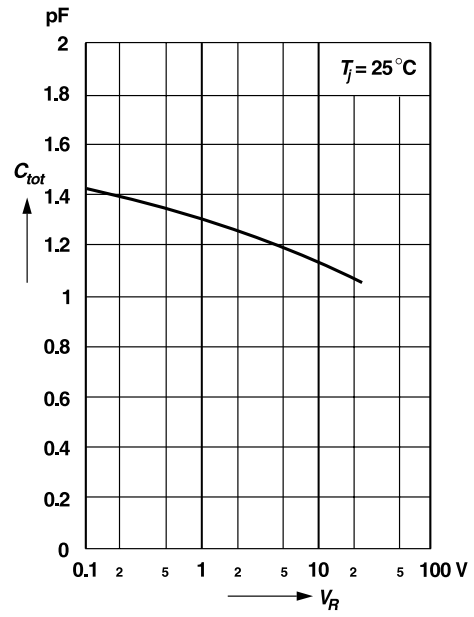


BAV19W thru BAV21W

Dynamic forward resistance
versus forward current



Capacitance
versus reverse voltage





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Ordering Information :

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

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