

BAV19W THRU BAV21W

Features

- Silicon Epitaxial Planar Diodes
- For General Purpose
- This diode is also available in other case.

Mechanical Data

- Case: SOD-123, Molded Plastic
- Weight: approx. 0.01g
- Marking code: BAV19W=A8
BAV20W=T2
BAV21W=T3

Maximum Ratings

Symbol	Rating	Rating	Unit
V_R	Continuous Reverse Voltage BAV19W BAV20W BAV21W	100 150 200	V
V_{RRM}	Repetitive Peak Reverse Voltage BAV19W BAV20W BAV21W	120 200 250	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	375	mW
T_j	Junction Temperature	-55 to +150	$^{\circ}C$
T_{STG}	Storage Temperature	-55 to +150	$^{\circ}C$

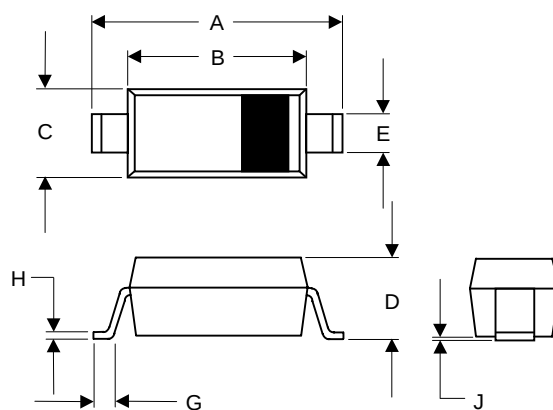
Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
V_F	Forward Voltage ($I_F=100mA$) ($I_F=200mA$)	---	---	1.00 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

*(1) Valid provided that leads are kept at ambient temperature

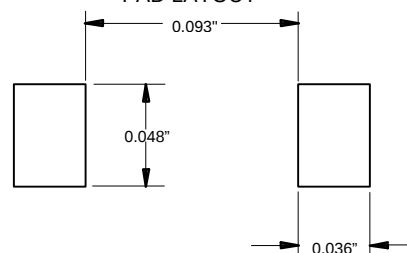
**410mW
Small Signal
Diodes
120 to 250 Volts**

SOD123



DIMENSIONS					
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	

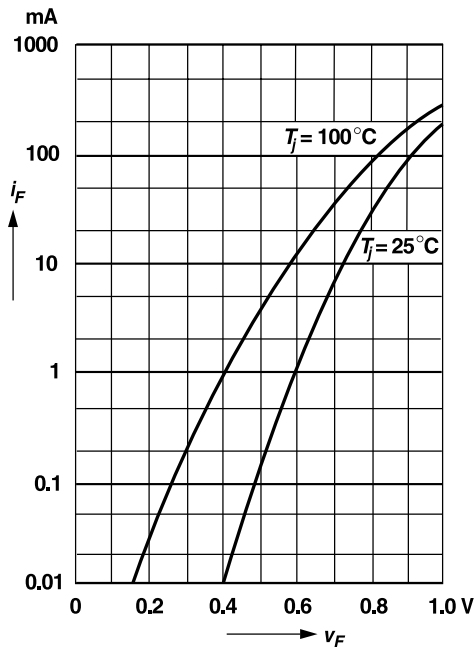
SUGGESTED SOLDER PAD LAYOUT



BAV19W thru BAV21W

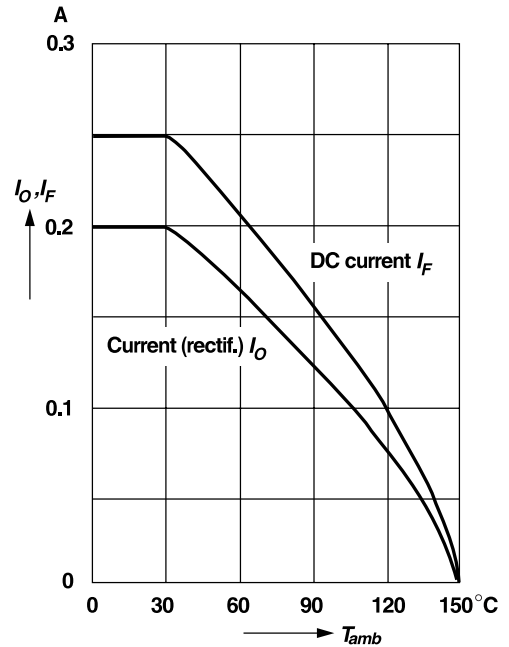


Forward characteristics



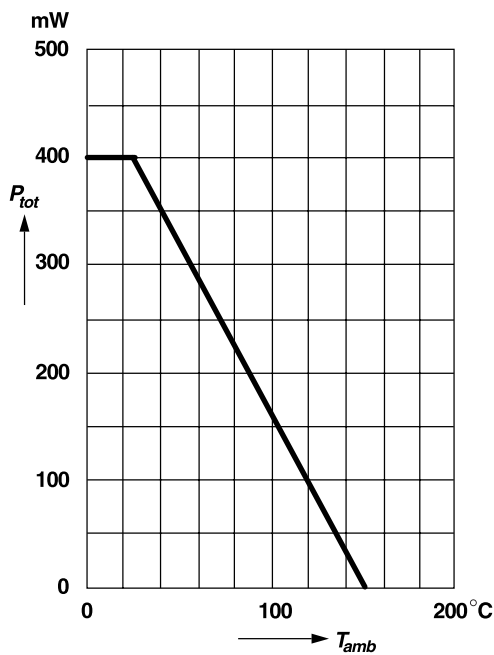
Admissible forward current versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

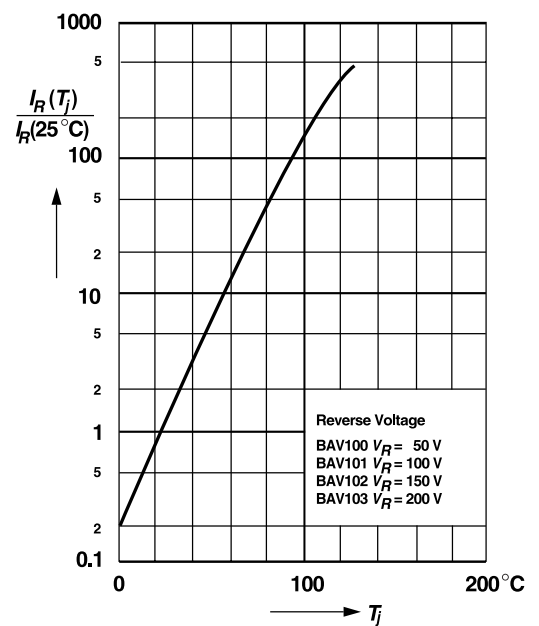


Admissible power dissipation versus ambient temperature

Valid provided that electrodes are kept at ambient temperature



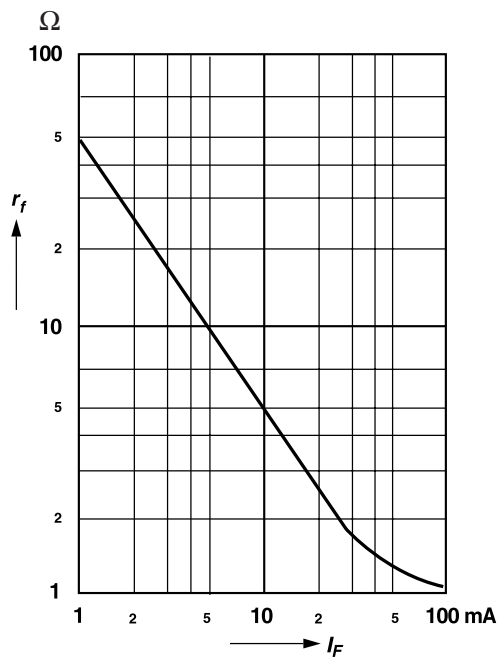
Leakage current versus junction temperature



BAV19W thru BAV21W



Dynamic forward resistance
versus forward current



Capacitance
versus reverse voltage

