Micro Commercial Components
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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.

Mechanical Data

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

Maximum Ratings

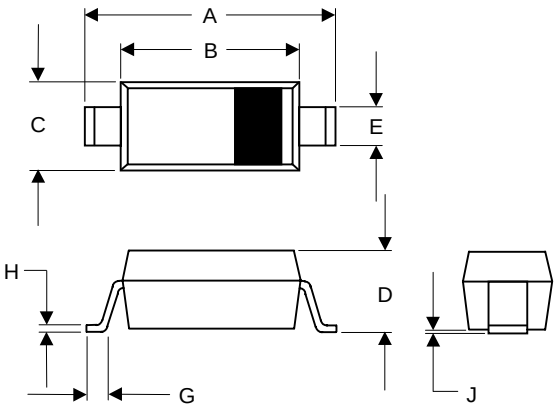
Symbol	Rating		Rating	Unit
V_R	Continuous Reverse Voltage	BAV19W BAV20W BAV21W	100 150 200	V
V_{RRM}	Repetitive Peak Reverse Voltage	BAV19W BAV20W BAV21W	120 200 250	V
I_F	Forward DC Current at Tamb=25°C(1)		250	mA
$I_{F(AV)}$	Rectified Current (Average) Half Wave Rectification with Resist. Load at Tamb=25°C(1)		200	mA
I_{FRM}	Repetitive Peak Forward Current at f>50Hz, Tamb=25°C(1)		625	mA
I_{FSM}	Surge Forward Current at t<1s, Tj=25°C		1.0	A
P_{tot}	Power Dissipation at Tamb=25°C(1)		410	mW
R_{JA}	Thermal Resistance Junction to Ambient Air		375	mW
T_J	Junction Temperature		-55 to +150	°C
T_{STG}	Storage Temperature		-55 to +150	°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)	BAV19W	---	---	100	nA
	(VR=100V, Tj=100°C)	BAV19W	---	---	15	uA
	(V_R=150V)	BAV20W	---	---	100	nA
	(VR=150V, Tj=100°C)	BAV20W	---	---	15	uA
	(V_R=200V)	BAV21W	---	---	100	nA
	(VR=200V, Tj=100°C)	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) (Irr=3.0mA, R_L=100OHMS)		---	---	50	ns

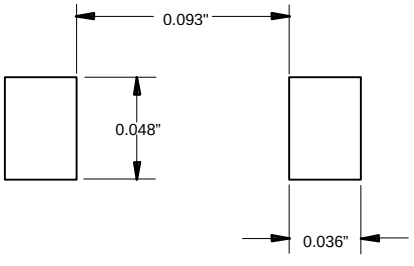
*(1) Valid provided that leads are kept at ambient temperature

SOD123



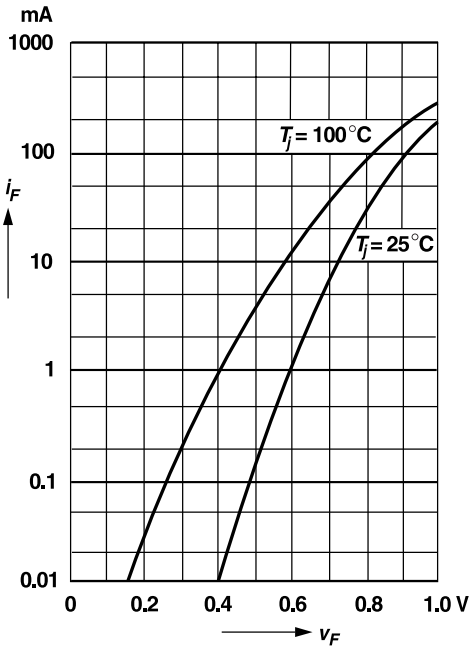
DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	-----	.053	-----	1.35	
E	.012	.031	0.30	.78	
G	.006	-----	0.15	-----	
H	-----	.01	-----	.25	
J	-----	.006	-----	.15	

SUGGESTED SOLDER PAD LAYOUT



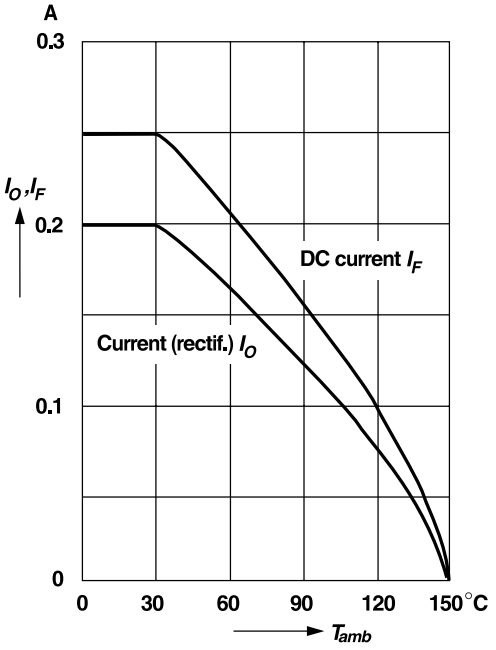
BAV19W thru BAV21W

Forward characteristics



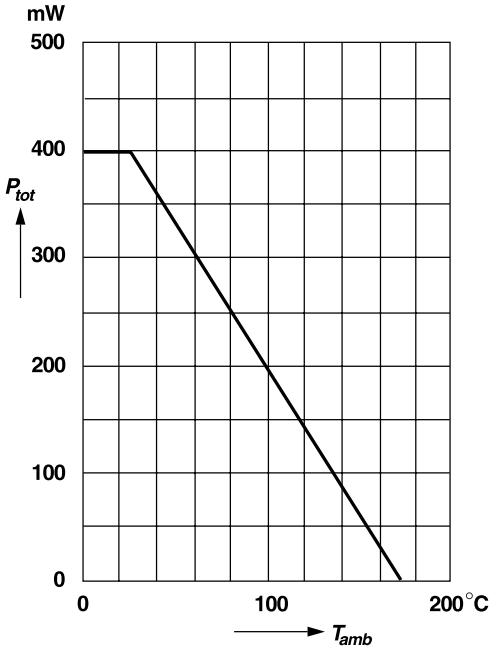
Admissible forward current versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

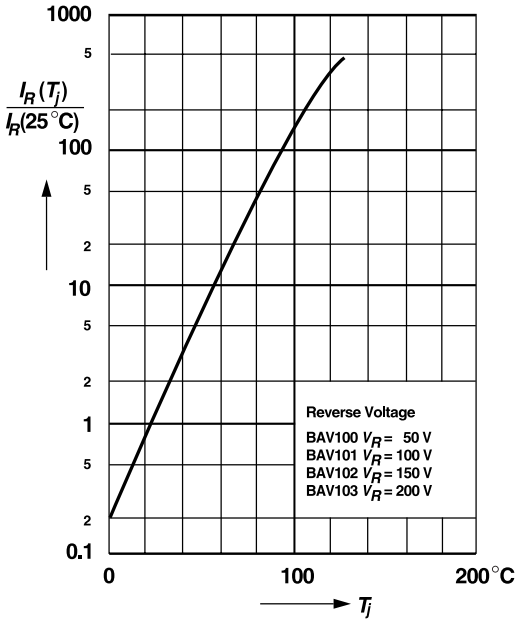


Admissible power dissipation versus ambient temperature

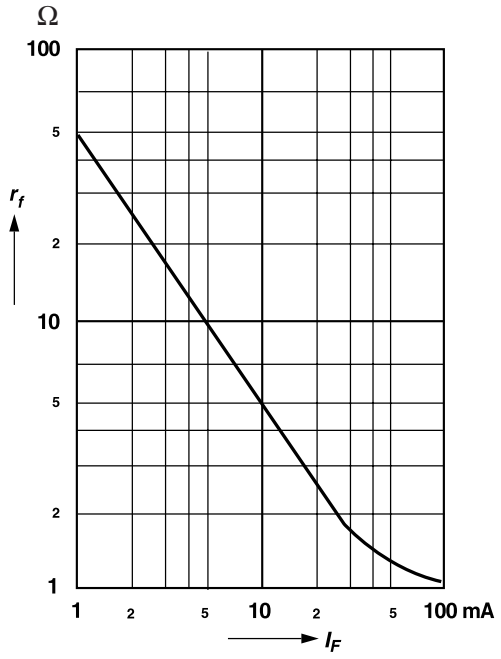
Valid provided that electrodes are kept at ambient temperature



Leakage current versus junction temperature



Dynamic forward resistance versus forward current



Capacitance versus reverse voltage