

**Micro Commercial Components** 

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# BAV19WS THRU BAV21WS

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 Material: Molded Plastic. UL Flammability Classification Rating 94V-0

• Marking code: BAV19WS=A8

BAV20WS=T2 BAV21WS=T3

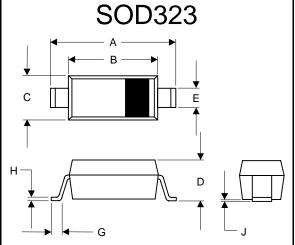
Maximum Ratings

Symbol	Rating	Rating	Unit
	Continuous Reverse Voltage BAV19WS	100	
$V_R$	BAV20WS	150	V
	BAV21WS	200	
	Repetitive Peak Reverse Voltage BAV19WS	120	
$V_{RRM}$	BAV20WS	200	V
	BAV21WS	250	
l <sub>F</sub>	Forward DC Current at Tamb=25°C <sup>1)</sup>	250	mA
	Rectified Current (Average) Half Wave		
I <sub>F(AV)</sub>	Rectification with Resist. Load at	200	mA
,	Tamb=25 <sup>o</sup> C <sup>(1)</sup>		
I <sub>FRM</sub>	Repetitive Peak Forward Current at f>50Hz,	625	mA
	Tamb=25 <sup>o</sup> C <sup>(1)</sup>		
I <sub>FSM</sub>	Surge Forward Current at t<1s, Tj=25°C	1.0	Α
P <sub>tot</sub>	Power Dissipation at Tamb=25°C(1)	410	mW
$R_{JA}$	Thermal Resistance Junction to Ambient Air	375	mW
T,	Junction Temperature	-55 to +150	လ
T <sub>STG</sub>	Storage Temperature	-55 to +150	$^{\circ}$

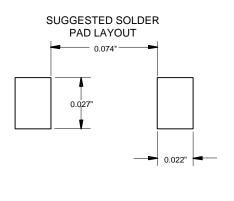
Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Paramete	Min	Тур	Max	Units	
$V_{F}$	Forward Voltage	(I <sub>F</sub> =100mA)			1.00	V
		$(I_F = 200 \text{mA})$			1.25	٧
$I_{R}$	Leakage Current					
	(V <sub>R</sub> =100V)	BAV19WS			100	nA
	(VR=100V, Tj=100°C)	BAV19WS			15	uA
	(V <sub>R</sub> =150V)	BAV20WS			100	nA
	(VR=150V, Tj=100°C)	BAV20WS			15	uA
	(V <sub>R</sub> =200V)	BAV21WS			100	nA
	(VR=200V, Tj=100°C)	BAV21WS			15	uA
r <sub>f</sub>	Dynamic Forward Resistance (=10mA)			5.0		OHM
C <sub>tot</sub>	Capacitance $(V_R=0, f=1.0MHz)$			1.5		pF
t <sub>rr</sub>	Reverse Recovery Time (\$\mu=30mA, \$\mu=30mA\$) (Irr=3.0mA, \$\mu=1000HI				50	ns

<sup>\*(1)</sup> Valid provided that leads are kept at ambient temperature



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
Α	.090	.107	2.30	2.70	
В	.063	.071	1.60	1.80	
С	.045	.053	1.15	1.35	
D	.031	.045	0.80	1.15	
Е	.010	.016	0.25	0.40	
G	.004	.018	0.10	0.45	
Н	.004	.010	0.10	0.25	
J		.006		0.15	

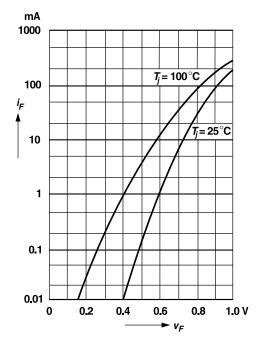


## BAV19WS thru BAV21WS



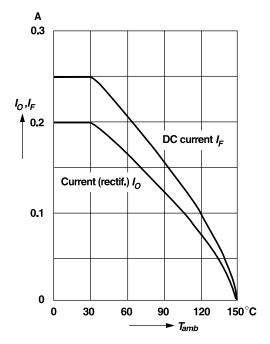
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#### Forward characteristics



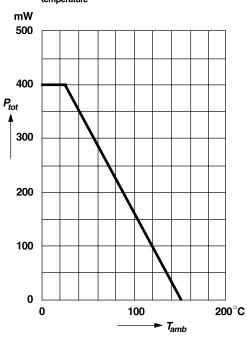
## Admissible forward current versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

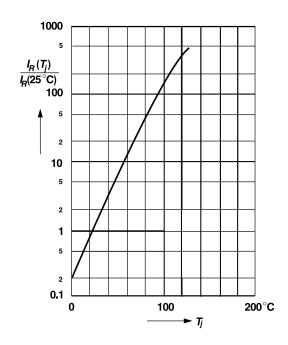


## Admissible power dissipation versus ambient temperature

Valid provided that electrodes are kept at ambient



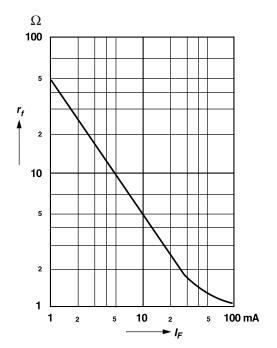
## Leakage current versus junction temperature



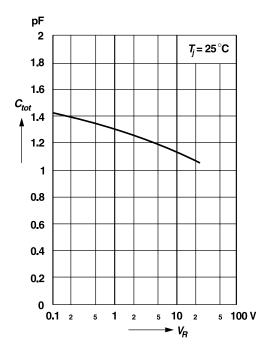
## BAV19WS thru BAV21WS



Dynamic forward resistance versus forward current



Capacitance versus reverse voltage





#### **Ordering Information**

Device	Packing
(Part Number)-TP	Tape&Reel3Kpcs/Reel

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