

Micro Commercial Components



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

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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.
- 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
	Continuous Reverse Voltage	BAV19W	100	
V_R		BAV20W	150	V
		BAV21W	200	
	Repetitive Peak Reverse Voltage	BAV19W	120	
V_{RRM}		BAV20W	200	V
		BAV21W	250	
l _F	Forward DC Current at Tamb=25°C ¹⁾		250	mA
	Rectified Current (Average) Half	Wave		
$I_{F(AV)}$	Rectification with Resist. Load at		200	mA
	Tamb=25 ^o C ⁽¹⁾			
I _{FRM}	Repetitive Peak Forward Current at f>50Hz,		625	mA
	Tamb=25 ^o C ⁽¹⁾			
I _{FSM}	Surge Forward Current at t<1s, Tj=25°C		1.0	Α
P _{tot}	Power Dissipation at Tamb=25°C ⁽¹⁾		410	mW
R_{JA}	Thermal Resistance Junction to Ambient Air		305	°C/W
TJ	Junction Temperature		-55 to +150	$^{\circ}$
T_{STG}	Storage Temperature		-55 to +150	$^{\circ}$

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Paramete	Min	Тур	Max	Units	
V_{F}	Forward Voltage	(I _F =100mA)			1.00	V
		$(I_F = 200 \text{mA})$			1.25	٧
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 (\pmaximus=10mA)		1	5.0	1	OHM
C _{tot}	Capacitance $(V_R=0, f=1.0MHz)$		1	1.5	1	pF
t _{rr}	Reverse Recovery Time (\$\mu=30mA\$, \$\mu=30mA\$) (Irr=3.0mA\$, \$\mu=1000HI\$	MS)			50	ns

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

SOD123

DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
Α	.140	.152	3.55	3.85	
В	.100	.112	2.55	2.85	
С	.055	.071	1.40	1.80	
D		.053		1.35	
Е	.012	.031	0.30	.78	
G	.006		0.15		
Н		.01		.25	
J		.006		.15	

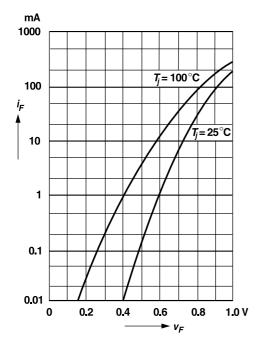
SUGGESTED SOLDER PAD LAYOUT 0.093" 0.036"

BAV19W thru BAV21W



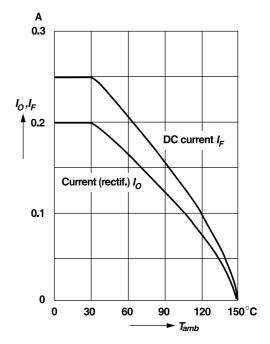
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Forward characteristics



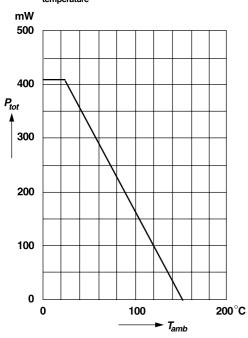
Admissible forward current versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

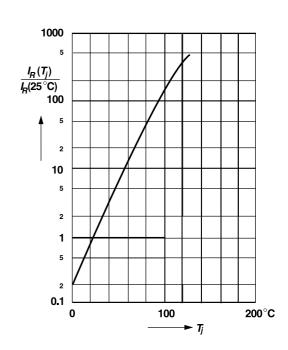


Admissible power dissipation versus ambient temperature

Valid provided that electrodes are kept at ambient



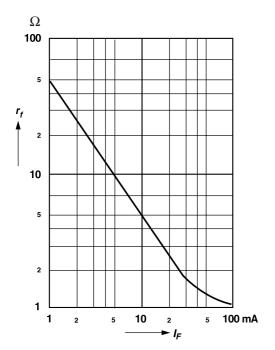
Leakage current versus junction temperature



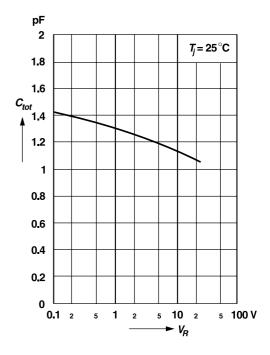
BAV19W thru BAV21W



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

Note: Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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