

# BAV19 THRU BAV21

**500mW  
Small Signal  
Diodes  
120 to 250 Volts**

**DO-35 GLASS**

## Features

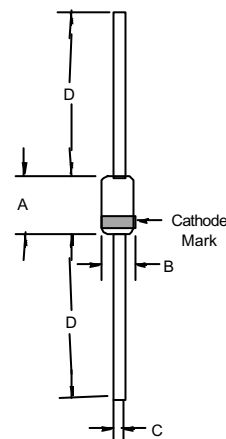
- Silicon Epitaxial Planar Diodes
- For General Purpose
- This diode is also available in other case.
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)

## Mechanical Data

- Case: DO-35 Glass Case
- Weight: approx. 0.13g
- Marking : Cathode band and type number
- Moisture Sensitivity Level 1

## Maximum Ratings

Symbol	Rating	Rating	Unit
$V_R$	Continuous Reverse Voltage	BAV19	100
		BAV20	150
		BAV21	200
$V_{RRM}$	Repetitive Peak Reverse Voltage	BAV19	120
		BAV20	200
		BAV21	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
$I_{FRM}$	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 $T_{amb}=25^{\circ}C^{(2)}$	500	mW
$T_j$	Junction Temperature	-55 to +150	$^{\circ}C$
$T_{STG}$	Storage Temperature	-55 to +150	$^{\circ}C$



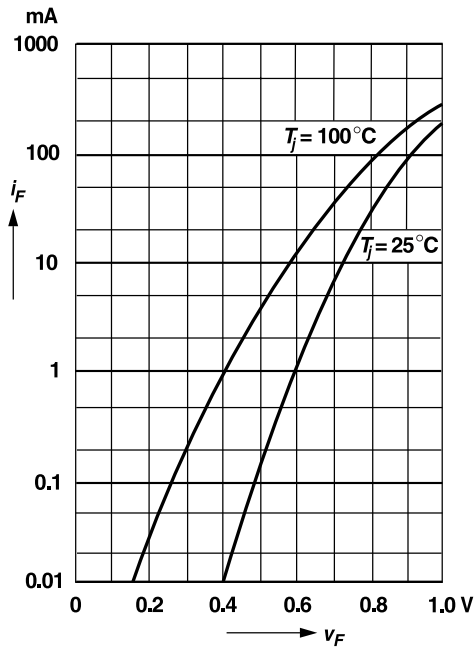
## Electrical Characteristics @ 25°C Unless Otherwise Specified

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 ( $V_R=100V$ ) ( $V_R=100V, T_j=100^{\circ}C$ ) ( $V_R=150V$ ) ( $V_R=150V, T_j=100^{\circ}C$ ) ( $V_R=200V$ ) ( $V_R=200V, T_j=100^{\circ}C$ )	BAV19	---	100	nA
		BAV19	---	15	uA
		BAV20	---	100	nA
		BAV20	---	15	uA
		BAV21	---	100	nA
		BAV21	---	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 ( $I_F=30mA, I_R=30mA$ ) ( $I_{rr}=3.0mA, R_L=100OHMS$ )	---	---	50	ns

DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	---	.166	---	4.2	
B	---	.079	---	2.00	
C	---	.020	---	.52	
D	1.000	---	25.40	---	

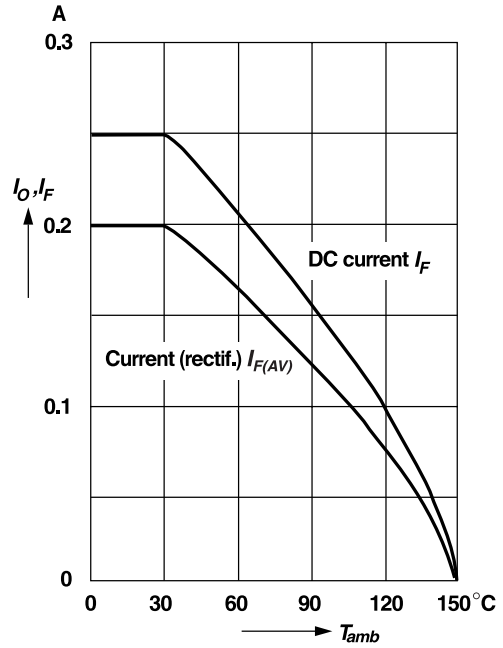
Note: 1. Lead in Glass Exemption Applied, see EU Directive Annex 7(C)-I.  
2. Valid provided that leads are kept at ambient temperature at a distance of 8mm from case.

**Forward characteristics**



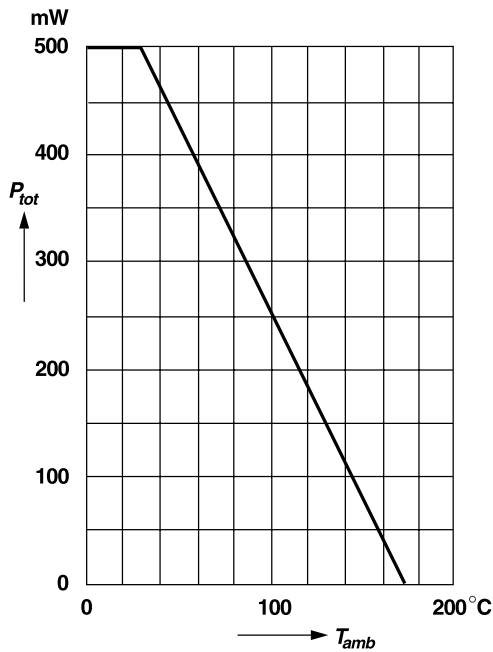
**Admissible forward current versus ambient temperature**

Valid provided that electrodes are kept at ambient temperature

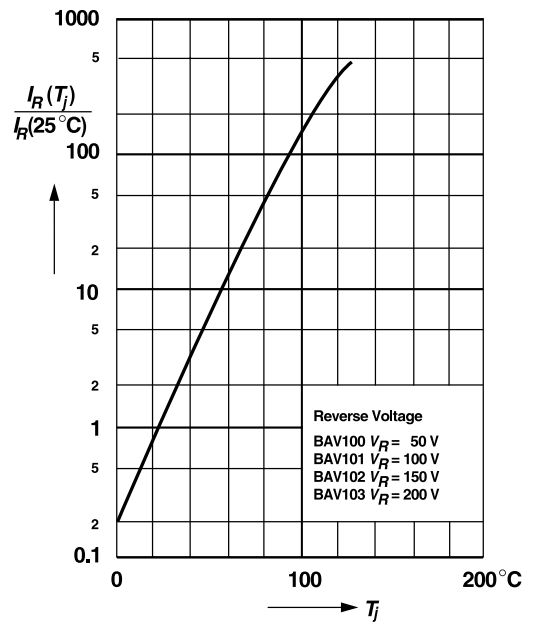


**Admissible power dissipation versus ambient temperature**

Valid provided that electrodes are kept at ambient temperature

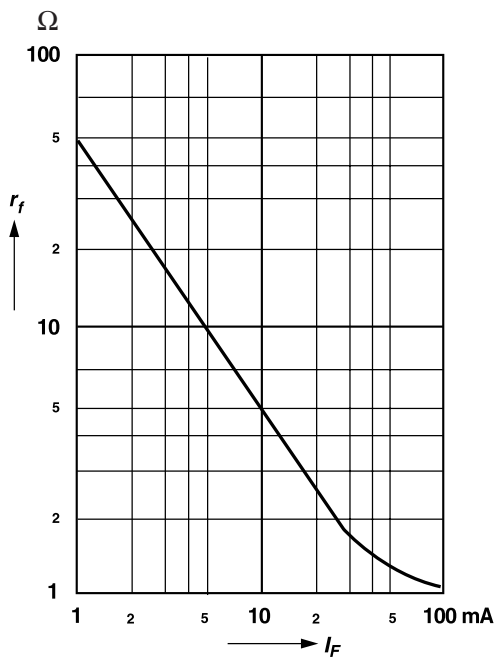


**Leakage current versus junction temperature**

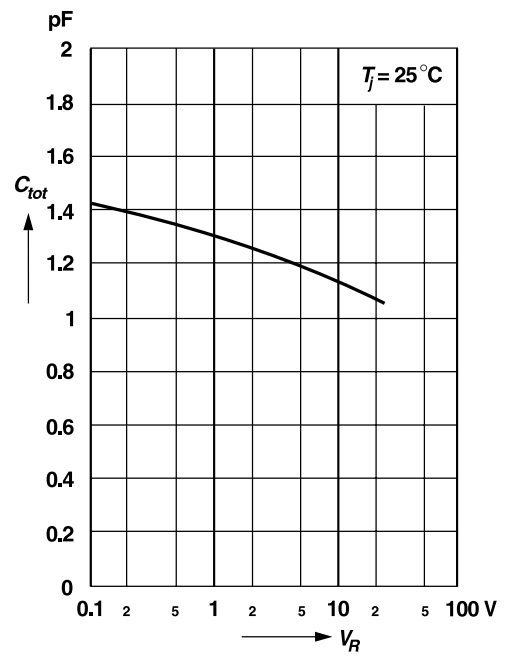


# BAV19 thru BAV21

Dynamic forward resistance  
versus forward current



Capacitance  
versus reverse voltage





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### Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 10Kpcs/Reel
Part Number-AP	Ammo Packing: 5Kpcs/Ammo Box
Part Number-BP	Bulk: 100Kpcs/Carton

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