

# BAV100 THRU BAV103

## Small Signal Diodes

### Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Moisture Sensitivity Level 1
- Silicon Epitaxial Planar Diodes
- These diodes are also available in other case styles including: the DO-35 case with the type designations BAV19 to BAV21, the SOD-123 case with the type designations BAV19W to BAV21W, the SOT-23 case with the type designations BAS19 to BAS21, and the SOD-323 case with type designations BAV19WS to BAV21WS.

### Maximum Ratings

Continuous Reverse Voltage	BAV100 BAV101 BAV102 BAV103	$V_R$	50V 100V 150V 200V	$T_A=25^\circ\text{C}$
Repetitive Peak Reverse Voltage	BAV100 BAV101 BAV102 BAV103	$V_{RRM}$	60V 120V 200V 250V	$T_A=25^\circ\text{C}$
Forward DC Current		$I_F$	250mA	$T_A=25^\circ\text{C}^{(1)}$
Rectified Current (Average) Half Wave Rectification with Resist. Load		$I_{(FAV)}$	200mA	$f>50\text{Hz}$ , $T_A=25^\circ\text{C}$
Repetitive Peak Forward Current		$I_{FRM}$	625mA	$f>50\text{Hz}$ , $T_A=25^\circ\text{C}^{(1)}$
Surge Forward Current		$I_{FSM}$	1.0A	$T<1\text{s}$ , $T_J=25^\circ\text{C}$
Power Dissipation		$P_{TOT}$	400mW	$T_A=25^\circ\text{C}$
Thermal Resistance Junction to Ambient Air <sup>(2)</sup>		$T_A$	375°C/W	
Operating and Storage temperature Range		$T_S, T_{STG}$	-55 to +150°C	

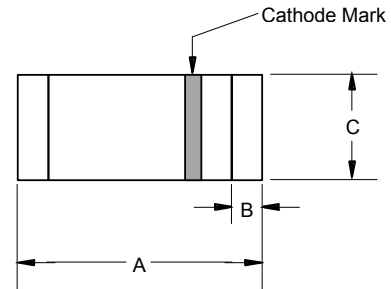
Note: (1) Valid provided that electrodes are kept at ambient temperature

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Maximum Forward Voltage	$I_F=100\text{mA}$ $I_F=200\text{mA}$	$V_F$	1.00V 1.25V	$T_A=25^\circ\text{C}$
Maximum Leakage current	BAV100 BAV101 BAV102 BAV103	$I_R$	100nA 15uA 100nA 15uA 100nA 15uA 100nA 15uA	$V_R=50\text{V}$ $V_R=50\text{V}, T_J=100^\circ\text{C}$ $V_R=100\text{V}$ $V_R=100\text{V}, T_J=100^\circ\text{C}$ $V_R=150\text{V}$ $V_R=150\text{V}, T_J=100^\circ\text{C}$ $V_R=200\text{V}$ $V_R=200\text{V}, T_J=100^\circ\text{C}$
Typical Capacitance		$C_{TOT}$	1.5pF	$V_R=0\text{V}$ , $f=1.0\text{MHz}$
Maximum Reverse recovery time		$t_{rr}$	50ns	$I_F=30\text{mA}$ , $I_R=30\text{mA}$ $I_F=3.0\text{mA}$ , $R_L=100\text{OHM}$
Typical Dynamic Forward Resistance		$R_F$	5.0 OHM	$I_F=10\text{mA}$

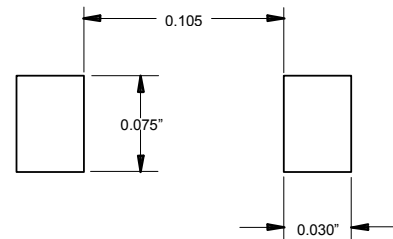
Notes: 1. Lead in Glass Exemption Applied, see EU Directive Annex 5.  
 2. Valid provided that electrodes are kept at ambient temperature

### MINIMELF(SOD-80C)

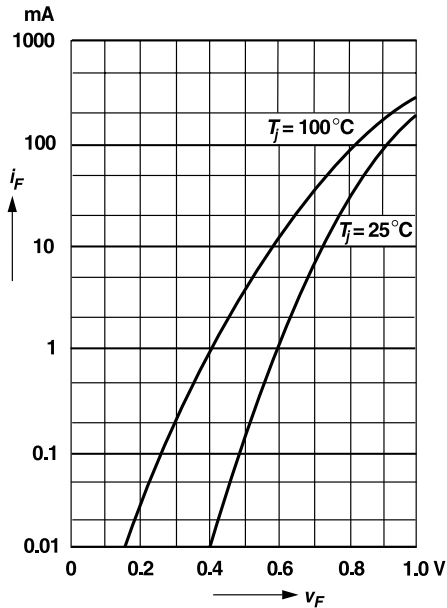


DIM	DIMENSION				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.130	.146	3.30	3.70	
B	.008	.016	0.20	0.40	
C	.055	.059	1.40	1.50	

### SUGGESTED SOLDER PAD LAYOUT

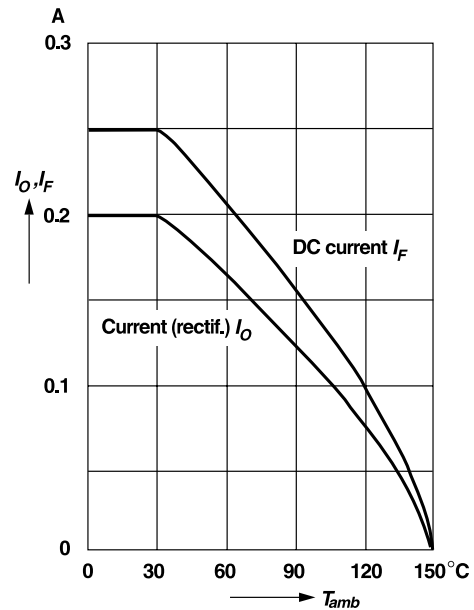


**Forward characteristics**



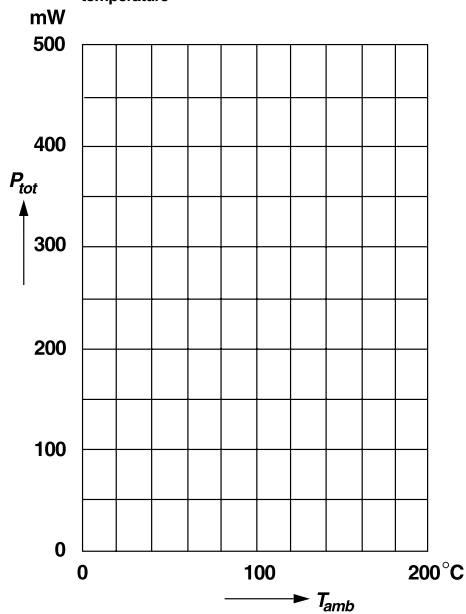
**Admissible forward current versus ambient temperature**

Valid provided that electrodes are kept at ambient temperature

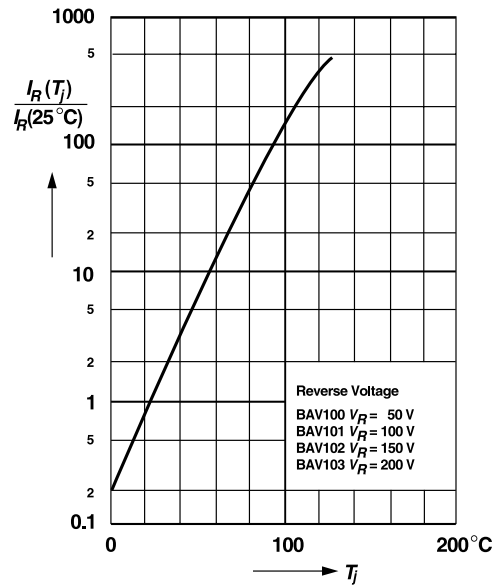


**Admissible power dissipation versus ambient temperature**

Valid provided that electrodes are kept at ambient temperature



**Leakage current versus junction temperature**

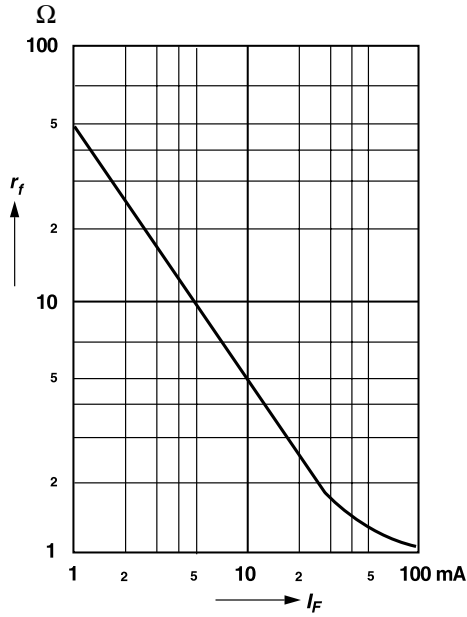


# BAV100 thru BAV103

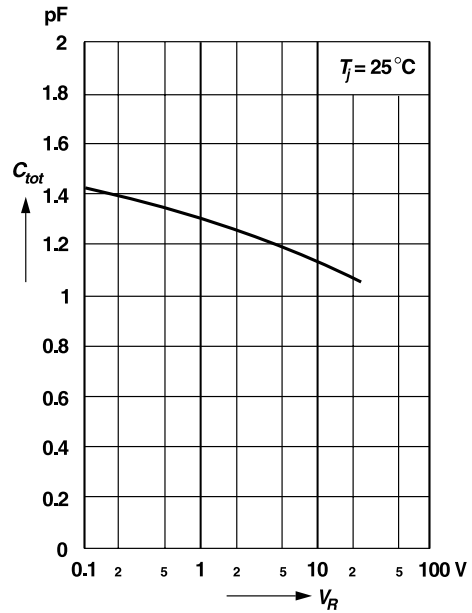


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Dynamic forward resistance versus forward current



Capacitance versus reverse voltage





Micro Commercial Components

### Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel

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