

## BAV19WS ~ BAV21WS

**PRV : 100 Volts**

**Io : 250 mA**

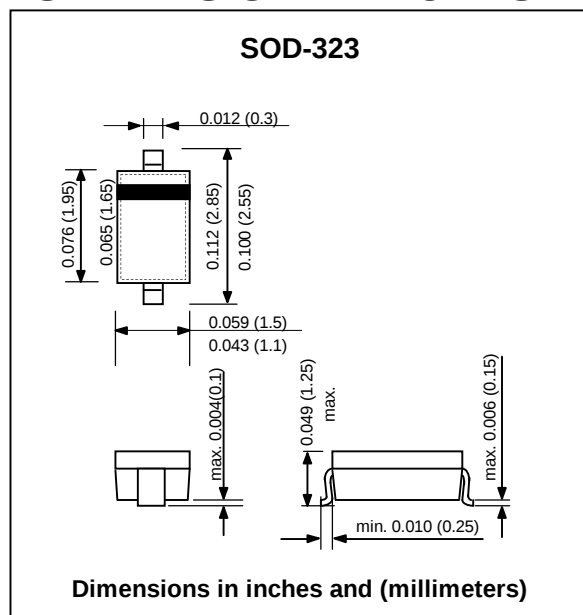
### FEATURES :

- \* Silicon Epitaxial Planar Diode
- \* For General Purpose
- \* **Pb / RoHS Free**

### MECHANICAL DATA :

- \* Case : SOD-323 plastic Case

## SMALL SIGNAL DIODES



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

| Parameter                                                                                                                                       | Symbol      | BAV19WS           | BAV20WS | BAV21WS | Unit               |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------------|---------|---------|--------------------|
| Reverse Voltage                                                                                                                                 | $V_R$       | 100               | 150     | 200     | V                  |
| Peak Reverse Voltage                                                                                                                            | $V_{RM}$    | 120               | 200     | 250     | V                  |
| Rectified Current (Average)<br>Half Wave Rectification with Resist. Load<br>at $T_{amb} = 25\text{ }^{\circ}\text{C}$ and $f \geq 50\text{ Hz}$ | $I_{F(AV)}$ | 250               |         |         | mA                 |
| Surge Forward Current at $t < 1\text{ s}$ and $T_j = 25\text{ }^{\circ}\text{C}$                                                                | $I_{FSM}$   | 1.0               |         |         | A                  |
| Power Dissipation at $T_{amb} = 25\text{ }^{\circ}\text{C}$                                                                                     | $P_{tot}$   | 200 <sup>1)</sup> |         |         | mW                 |
| Junction Temperature                                                                                                                            | $T_j$       | 150               |         |         | $^{\circ}\text{C}$ |
| Storage Temperature Range                                                                                                                       | $T_S$       | -65 to + 175      |         |         | $^{\circ}\text{C}$ |

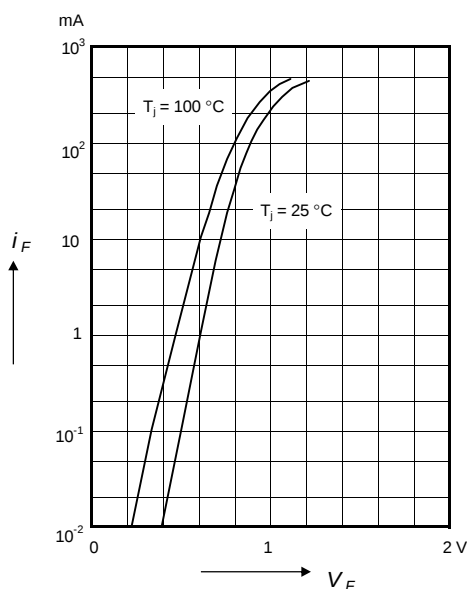
### ELECTRICAL CHARACTERISTICS (Rating at $T_j = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)

| Parameter             | Symbol    | Test Condition                                                                            | Min. | Typ. | Max. | Unit |
|-----------------------|-----------|-------------------------------------------------------------------------------------------|------|------|------|------|
| Forward Voltage       | $V_F$     | $I_F = 100\text{ mA}$                                                                     | -    | -    | 1    | V    |
|                       |           | $I_F = 200\text{ mA}$                                                                     | -    | -    | 1.25 | V    |
| Leakage Current       | $I_R$     | $V_R = 100\text{ V}$                                                                      | -    | -    | 100  | nA   |
|                       |           | $V_R = 150\text{ V}$                                                                      | -    | -    | 100  | nA   |
|                       |           | $V_R = 200\text{ V}$                                                                      | -    | -    | 100  | nA   |
| Capacitance           | $C_{tot}$ | $V_F = V_R = 0\text{ V}$                                                                  | -    | -    | 1.5  | pF   |
| Reverse Recovery Time | $T_{rr}$  | $I_F = 30\text{ mA}$ , $I_R = 30\text{ mA}$<br>$I_{rr} = 3\text{ mA}$ , $R_L = 100\Omega$ | -    | -    | 50   | ns   |

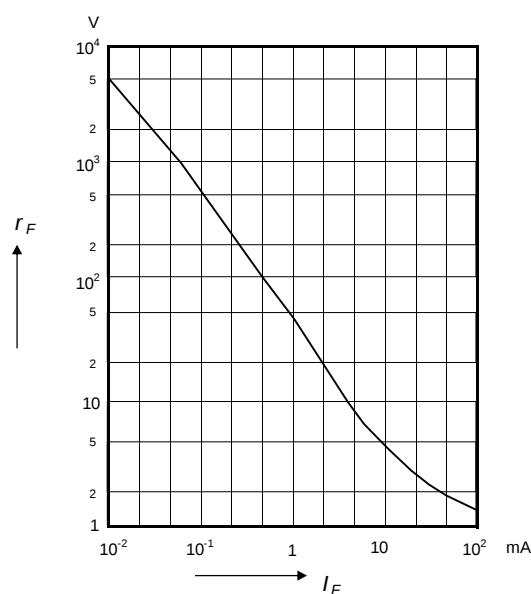
Note : 1) Valid provided that electrodes are kept at ambient temperature

## RATINGS AND CHARACTERISTIC CURVES ( BAV19WS ~ BAV21WS)

**Forward charecteristics**

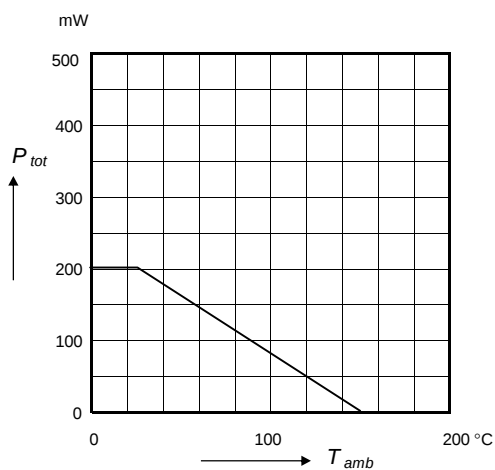


**Dynamic forward resistance versus forward current**



**Admissible power dissipation versus ambient temperature**

For conditions, see footnote in table  
"Absolute Maximum Ratings"



**Admissible forward current versus ambient temperature**

Valid provided that electrodes are kept at ambient temperrature

