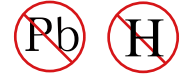




**400mW SOD-123 SURFACE MOUNT**  
**Small Outline Flat Lead Plastic Package**  
**High Voltage & High Conductance**  
**Fast Switching Diode**



**Absolute Maximum Ratings**  $T_A = 25^\circ\text{C}$  unless otherwise noted

| Symbol      | Parameter                       | Value       | Units            |
|-------------|---------------------------------|-------------|------------------|
| $P_D$       | Power Dissipation               | 400         | mW               |
| $T_{STG}$   | Storage Temperature Range       | -65 to +150 | $^\circ\text{C}$ |
| $T_J$       | Operating Junction Temperature  | +150        | $^\circ\text{C}$ |
| $V_{RRM}$   | Repetitive Peak Reverse Voltage | 250         | V                |
| $I_{F(AV)}$ | Repetitive Peak Forward Current | 200         | mA               |

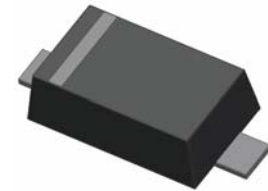
These ratings are limiting values above which the serviceability of the diode may be impaired.

**Specification Features:**

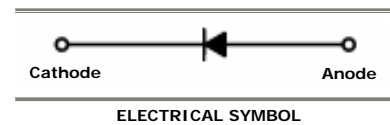
- Fast Switching Diode
- General Purpose Diodes High Voltage Application Diodes
- Flat Lead SOD-123 Small Outline Plastic Package
- Surface Device Type Mounting
- Moisture Sensitivity Level 1
- Clip Bonding Construction, Good Thermal Capability
- Pb Free Version and RoHS Compliant
- Matte Tin(Sn) Lead Finish with Nickel(Ni) Underplate
- Band Indicates Cathode

**DEVICE MARKING CODE:**

| Device Type | Device Marking |
|-------------|----------------|
| BAV19WFL    | H1             |
| BAV20WFL    | H2             |
| BAV21WFL    | H3             |



SOD-123 Flat Lead



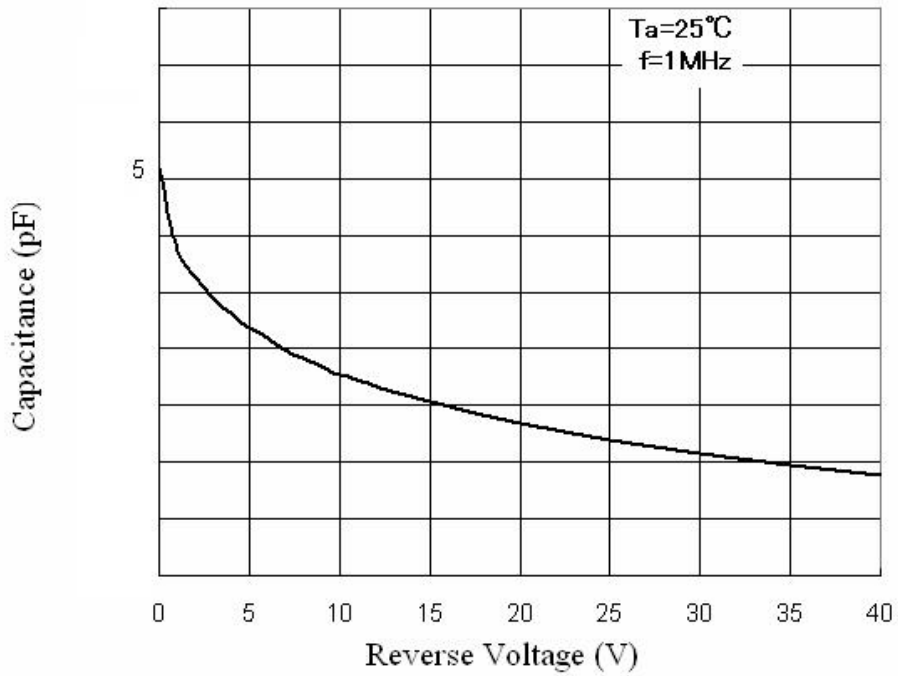
**Electrical Characteristics**  $T_A = 25^\circ\text{C}$  unless otherwise noted

| Symbol   | Parameter                 | Test Condition | Limits                                                          |     | Unit |       |
|----------|---------------------------|----------------|-----------------------------------------------------------------|-----|------|-------|
|          |                           |                | Min                                                             | Max |      |       |
| $B_V$    | Breakdown Voltage         | BAV19WFL       | $I_R=100\mu\text{A}$                                            | 120 | ---  | Volts |
|          |                           | BAV20WFL       |                                                                 | 200 | ---  | Volts |
|          |                           | BAV21WFL       |                                                                 | 250 | ---  | Volts |
| $I_R$    | Reverse Leakage Current ] | BAV19WFL       | $V_R=100\text{V}$                                               | --- | 100  | nA    |
|          |                           | BAV20WFL       | $V_R=150\text{V}$                                               | --- | 100  | nA    |
|          |                           | BAV21WFL       | $V_R=200\text{V}$                                               | --- | 100  | nA    |
| $V_F$    | Forward Voltage           |                | $I_F=100\text{mA}$                                              | --- | 1.0  | Volts |
|          |                           |                | $I_F=200\text{mA}$                                              | --- | 1.25 | Volts |
| $T_{RR}$ | Reverse Recovery Time     |                | $I_F=I_R=30\text{mA}$<br>$R_L=100\Omega$<br>$I_{RR}=3\text{mA}$ | --- | 50   | nS    |
| $C$      | Capacitance               |                | $V_R=0\text{V}, f=1\text{MHz}$                                  | --- | 5.0  | pF    |

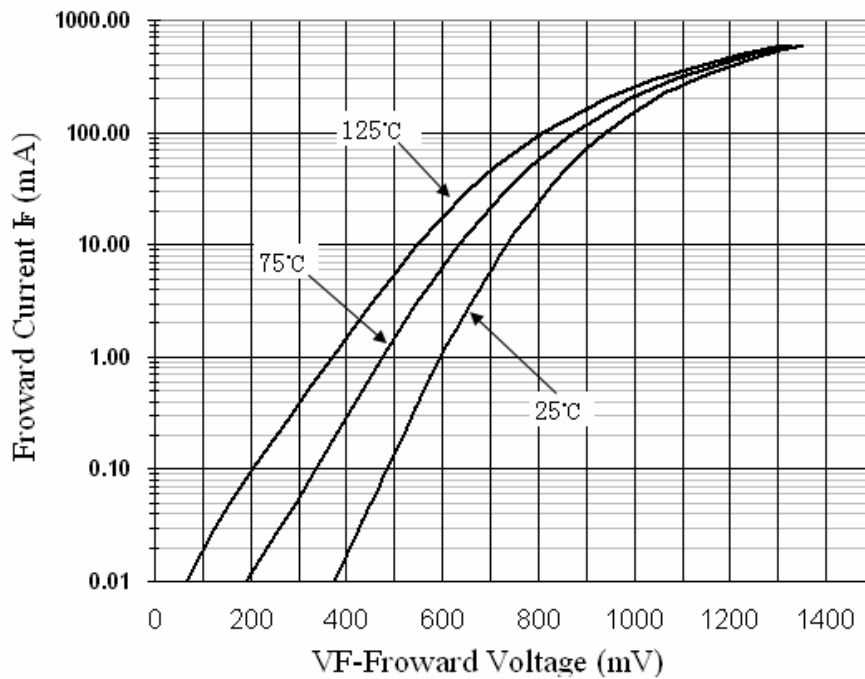
# DEVICE CHARACTERISTICS

BAV19WFL/ BAV20WFL/ BAV21WFL

### Total Capacitance



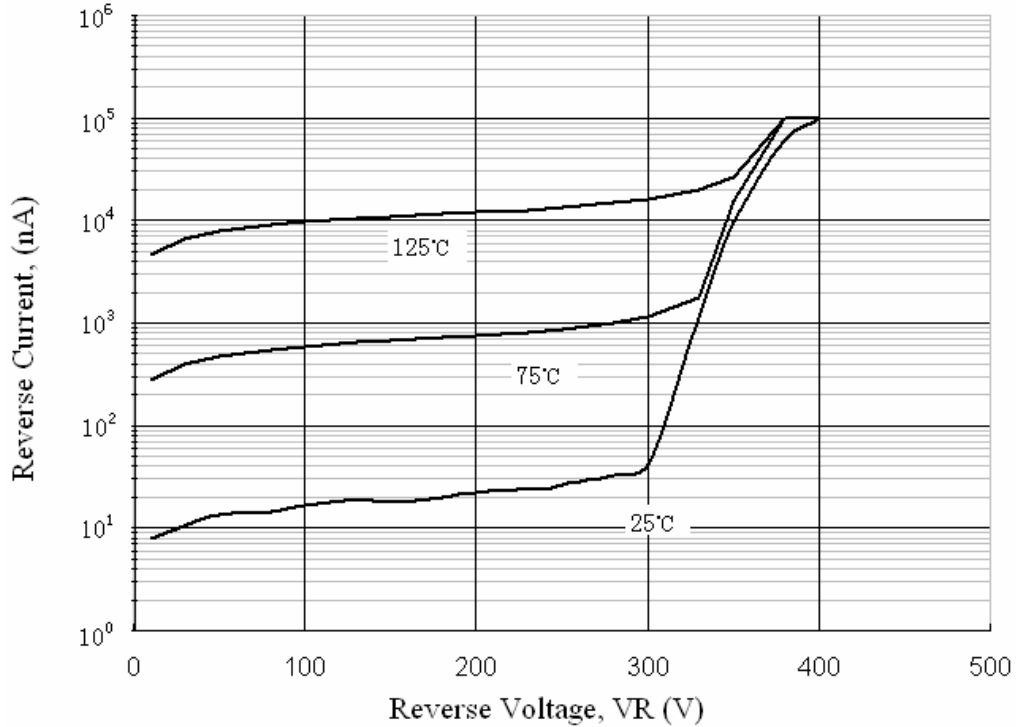
### Forward Voltage vs Ambient Temperature



# PACKAGE OUTLINE & DIMENSIONS

## BAV19WFL/ BAV20WFL/ BAV21WFL

Reverse Current vs Reverse Voltage



### Flat Lead SOD-123 Package Outline

