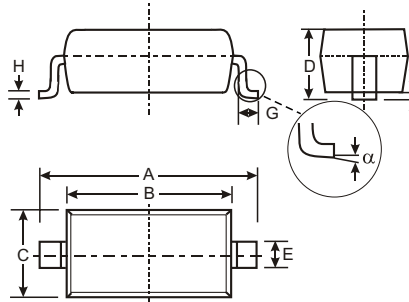


### Features

- Surface Mount Package Ideally Suited for Automatic Insertion
- Low Leakage Current
- Fast Switching Speed
- High Reverse Breakdown Voltage

### Mechanical Data

- Case: SOD-123, Molded Plastic
- Case material - UL Flammability Rating Classification 94V-0
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking: Date Code and Type Code  
Type Code: 4P, See Page 2
- Weight: 0.01 grams (approx.)
- Ordering Information, See Page 2



| SOD-123              |              |      |
|----------------------|--------------|------|
| Dim                  | Min          | Max  |
| A                    | 3.55         | 3.85 |
| B                    | 2.55         | 2.85 |
| C                    | 1.40         | 1.70 |
| D                    | —            | 1.35 |
| E                    | 0.55 Typical |      |
| G                    | 0.25         | —    |
| H                    | 0.11 Typical |      |
| J                    | —            | 0.10 |
| $\alpha$             | 0°           | 8°   |
| All Dimensions in mm |              |      |

### Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

| Characteristic                                                                          | Symbol             | BAV3004W    | Unit               |
|-----------------------------------------------------------------------------------------|--------------------|-------------|--------------------|
| Peak Repetitive Reverse Voltage                                                         | $V_{RRM}$          | 350         | V                  |
| Working Peak Reverse Voltage<br>DC Blocking Voltage                                     | $V_{RWM}$<br>$V_R$ | 300         | V                  |
| RMS Reverse Voltage                                                                     | $V_{R(RMS)}$       | 212         | V                  |
| Forward Continuous Current                                                              | $I_{FM}$           | 225         | mA                 |
| Repetitive Peak Forward Current                                                         | $I_{FRM}$          | 625         | mA                 |
| Non-Repetitive Peak Forward Surge Current @ $t = 1.0\mu\text{s}$<br>@ $t = 1.0\text{s}$ | $I_{FSM}$          | 4.0<br>1.0  | A                  |
| Power Dissipation                                                                       | $P_d$              | 400         | mW                 |
| Thermal Resistance Junction to Ambient Air                                              | $R_{\theta JA}$    | 312         | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range                                                 | $T_j, T_{STG}$     | -65 to +150 | $^\circ\text{C}$   |

### Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

| Characteristic            | Symbol      | Min | Typ                  | Max                 | Unit                | Test Condition                                                                              |
|---------------------------|-------------|-----|----------------------|---------------------|---------------------|---------------------------------------------------------------------------------------------|
| Reverse Breakdown Voltage | $V_{(BR)R}$ | 350 | —                    | —                   | V                   | $I_R = 100\mu\text{A}$                                                                      |
| Forward Voltage (Note 1)  | $V_{FM}$    | —   | 0.78<br>0.93<br>1.03 | 0.87<br>1.0<br>1.25 | V                   | $I_F = 20\text{mA}$<br>$I_F = 100\text{mA}$<br>$I_F = 200\text{mA}$                         |
| Leakage Current (Note 1)  | $I_{RM}$    | —   | 30<br>35             | 100<br>100          | nA<br>$\mu\text{A}$ | $V_R = 240\text{V}, T_j = 25^\circ\text{C}$<br>$V_R = 240\text{V}, T_j = 150^\circ\text{C}$ |
| Junction Capacitance      | $C_j$       | —   | 1.0                  | 5.0                 | pF                  | $V_R = 0, f = 1.0\text{MHz}$                                                                |
| Reverse Recovery Time     | $t_{rr}$    | —   | —                    | 50                  | ns                  | $I_F = I_R = 30\text{mA}$ ,<br>$I_{rr} = 3.0\text{mA}, R_L = 100\Omega$                     |

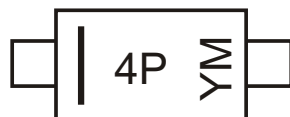
Notes: 1. Short duration pulse test to minimize self-heating effect.

## Ordering Information (Note 2)

| Device     | Packaging | Shipping         |
|------------|-----------|------------------|
| BAV3004W-7 | SOD-123   | 3000/Tape & Reel |

Notes: 2. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

## Marking Information



4P = Product Type Marking Code  
YM = Date Code Marking  
Y = Year (ex: N = 2002)  
M = Month (ex: 9 = September)

Date Code Key

| Year | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|------|------|------|------|------|------|------|------|------|
| Code | N    | P    | R    | S    | T    | U    | V    | W    |

| Month | Jan | Feb | March | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Code  | 1   | 2   | 3     | 4   | 5   | 6   | 7   | 8   | 9   | O   | N   | D   |

