

#### **Features**

- Low Reverse Current
- Surface Mount Package Ideally Suited for Automatic Insertion
- Fast Switching Speed
- For General Purpose Switching Applications

### **Package Marking and Ordering Information**

| Product ID   | Pack    | Marking | Qty(PCS) |
|--------------|---------|---------|----------|
| BAV19W-G3-08 | SOD-123 | A8      | 3000     |
| BAV20W-G3-08 | SOD-123 | T2      | 3000     |
| BAV21W-G3-08 | SOD-123 | Т3      | 3000     |



#### Maximum Ratings (Ta=25°C unless otherwise noted)

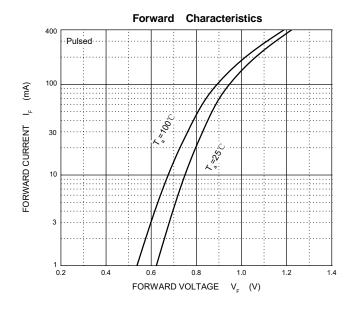
| Symbol            | Parameter   | Value   |          |     | Unit  |
|-------------------|---|---------|----------|-----|-------|
|                   | Parameter   | 19W     | 20W      | 21W | Offic |
| V <sub>RM</sub>   | Non-Repetitive Peak Reverse Voltage                 | 120     | 200      | 250 | V     |
| VRRM              | Peak Repetitive Reverse Voltage                     | 100 150 |          | 200 |       |
| VRWM              | Working Peak Reverse Voltage                        | 100     | 150      | 200 | V     |
| VR(RMS)           | RMS Reverse Voltage                                 | 71      | 106      | 141 | V     |
| lo                | Average Rectified Output Current 200                |         |          |     | mA    |
| IFSM              | Non-repetitive Peak Forward Surge Current @ t=8.3ms | 2.0     |          | Α   |       |
| PD                | Power Dissipation 500                               |         |          | mW  |       |
| R <sub>o</sub> JA | Thermal Resistance from Junction to Ambient         | 250     |          |     | °C/W  |
| Tj                | Junction Temperature 150                            |         |          | °C  |       |
| T <sub>stg</sub>  | Storage Temperature                                 |         | -55~+150 |     |       |

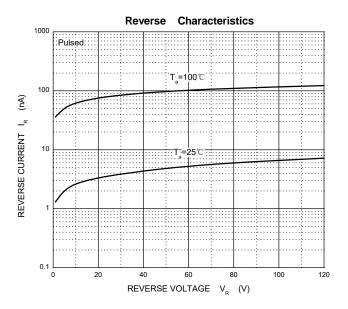
# Electrical Characteristics (Ta= 25°C unless otherwise specified)

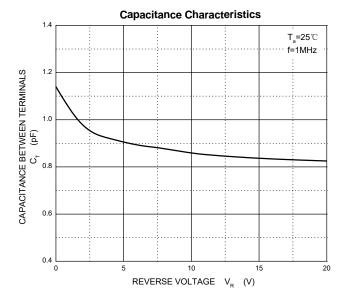
|                       | •                |   | •            |     | •   |      |      |  |
|-----------------------|------------------|---|--------------|-----|-----|------|------|--|
| Parameter             | Symbol           | Test conditions                                     |              | Min | Тур | Max  | Unit |  |
| Reverse current       | I <sub>R</sub>   | V <sub>R</sub> =100V                                | BAV19W-G3-08 |     |     | 0.1  |      |  |
|                       |                  | V <sub>R</sub> =150V                                | BAV20W-G3-08 |     |     | 0.1  | uA   |  |
|                       |                  | V <sub>R</sub> =200V                                | BAV21W-G3-08 |     |     | 0.1  |      |  |
| Forward voltage       | V <sub>F</sub>   | I <sub>F</sub> =100mA                               |              |     |     | 1    | V    |  |
|                       |                  | I <sub>F</sub> =200mA                               |              |     |     | 1.25 | V    |  |
| Total capacitance     | C <sub>tot</sub> | V <sub>R</sub> =0V,f=1MHz                           |              |     |     | 5    | pF   |  |
| Reverse recovery time | t <sub>rr</sub>  | $I_F=I_R=30$ mA, $I_{rr}=0.1*I_R$ , $R_L=100\Omega$ |              |     |     | 50   | ns   |  |

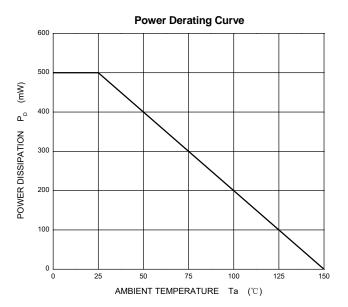


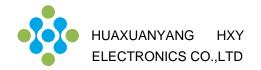
# **Typical Characteristics**



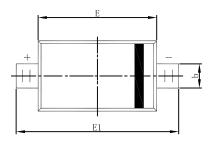


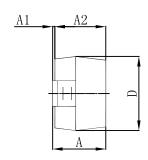


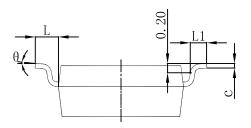




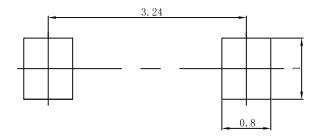
# **SOD-123 Package Outline Dimensions**







| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |  |
|--------|---------------------------|-------|----------------------|-------|--|
|        | Min                       | Max   | Min                  | Max   |  |
| Α      | 1.050                     | 1.250 | 0.041                | 0.049 |  |
| A1     | 0.000                     | 0.100 | 0.000                | 0.004 |  |
| A2     | 1.050                     | 1.150 | 0.041                | 0.045 |  |
| b      | 0.450                     | 0.650 | 0.018                | 0.026 |  |
| С      | 0.080                     | 0.150 | 0.003                | 0.006 |  |
| D      | 1.500                     | 1.700 | 0.059                | 0.067 |  |
| E      | 2.600                     | 2.800 | 0.102                | 0.110 |  |
| E1     | 3.550                     | 3.850 | 0.140                | 0.152 |  |
| Ĺ      | 0.500 REF                 |       | 0.020                | REF   |  |
| L1     | 0.250                     | 0.450 | 0.010                | 0.018 |  |
| θ      | 0°                        | 8°    | 0°                   | 8°    |  |



#### Note:

- 1.Controlling dimension:in millimeters.
- 2.General tolerance:± 0.05mm.
- 3. The pad layout is for reference purposes only.



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