

#### JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

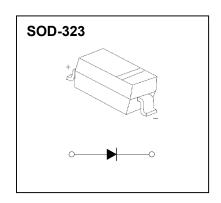
### **SOD-323 Plastic-Encapsulate Diodes**

#### **BAV16WS/1N4148WS**

**FAST SWITCHING DIODE** 

#### **FEATURES**

Fast Switching Speed Surface Mount Package Ideally Suited for Automatic Insertion For General Purpose Switching Applications High Conductance



MARKING: T6, T4

#### Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25℃

| Parameter                              | Symbol           | Limit    | Unit         |  |
|--|------------------|----------|--------------|--|
| Non-Repetitive Peak Reverse Voltage    | $V_{RM}$         | 100      | V            |  |
| Peak Repetitive Peak Reverse Voltage   | $V_{RRM}$        |          |              |  |
| Working Peak Reverse Voltage           | $V_{RWM}$        | 100      | V            |  |
| DC Blocking Voltage                    | $V_{R}$          |          |              |  |
| RMS Reverse Voltage                    | $V_{R(RMS)}$     | 71       | V            |  |
| Forward Continuous Current             | I <sub>FM</sub>  | 300      | mA           |  |
| Average Rectified Output Current       | Io               | 150      | mA           |  |
| Peak Forward Surge Current @t=1.0μs    | 1                | 2.0      | А            |  |
| @ t=1.0s                               | I <sub>FSM</sub> | 1.0      |              |  |
| Power Dissipation                      | Pd               | 200      | mW           |  |
| Thermal Resistance Junction to Ambient | R <sub>0JA</sub> | 625      | °C/W         |  |
| Junction Temperature                   | T <sub>j</sub>   | 150      | $^{\circ}$ C |  |
| Storage Temperature                    | T <sub>STG</sub> | -55~+150 | $^{\circ}$   |  |

#### Electrical Ratings @Ta=25℃

| Parameter                     | Symbol          | Min | Тур | Max   | Unit | Conditions                           |
|-------------------------------|-----------------|-----|-----|-------|------|--------------------------------------|
| Forward voltage               | V <sub>F1</sub> |     |     | 0.715 | V    | I <sub>F</sub> =1mA                  |
|                               | V <sub>F2</sub> |     |     | 0.855 | V    | I <sub>F</sub> =10mA                 |
|                               | V <sub>F3</sub> |     |     | 1.0   | V    | I <sub>F</sub> =50mA                 |
|                               | V <sub>F4</sub> |     |     | 1.25  | V    | I <sub>F</sub> =150mA                |
| Reverse current               | I <sub>R1</sub> |     |     | 1     | μA   | V <sub>R</sub> =75V                  |
|                               | I <sub>R2</sub> |     |     | 25    | nA   | V <sub>R</sub> =20V                  |
| Capacitance between terminals | C <sub>T</sub>  |     |     | 2     | pF   | V <sub>R</sub> =0V,f=1MHz            |
| Reverse recovery time         | t <sub>rr</sub> |     |     | 4     | ns   | I <sub>F</sub> =I <sub>R</sub> =10mA |
|                               |                 |     |     |       |      | Irr=0.1 $XI_R$ , $R_L$ =100 $\Omega$ |

# **Typical Characteristics**

## 1N4148WS

