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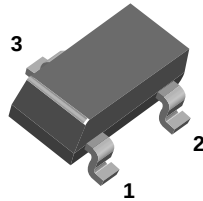


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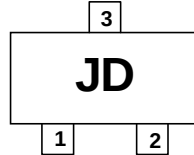
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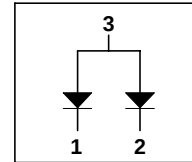
# BAW74



SOT-23



Connection Diagram



## Small Signal Diode

### Absolute Maximum Ratings\*

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

| Symbol      | Parameter                                                                                              | Value       | Units            |
|-------------|--------------------------------------------------------------------------------------------------------|-------------|------------------|
| $V_{RRM}$   | Maximum Repetitive Reverse Voltage                                                                     | 50          | V                |
| $I_{F(AV)}$ | Average Rectified Forward Current                                                                      | 200         | mA               |
| $I_{FSM}$   | Non-repetitive Peak Forward Surge Current<br>Pulse Width = 1.0 second<br>Pulse Width = 1.0 microsecond | 1.0<br>2.0  | A<br>A           |
| $T_{stg}$   | Storage Temperature Range                                                                              | -55 to +150 | $^\circ\text{C}$ |
| $T_J$       | Operating Junction Temperature                                                                         | 150         | $^\circ\text{C}$ |

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

**NOTES:**

1) These ratings are based on a maximum junction temperature of 150 degrees C.

2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

### Thermal Characteristics

| Symbol          | Parameter                               | Value | Units              |
|-----------------|-----------------------------------------|-------|--------------------|
| $P_D$           | Power Dissipation                       | 350   | mW                 |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient | 357   | $^\circ\text{C/W}$ |

### Electrical Characteristics

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

| Symbol   | Parameter             | Test Conditions                                                        | Min | Max | Units         |
|----------|-----------------------|------------------------------------------------------------------------|-----|-----|---------------|
| $V_R$    | Breakdown Voltage     | $I_R = 100 \mu\text{A}$                                                | 50  |     | V             |
| $V_F^*$  | Forward Voltage       | $I_F = 100 \text{ mA}$                                                 |     | 1.0 | V             |
| $I_R^*$  | Reverse Current       | $V_R = 50 \text{ V}, T_A = 150^\circ\text{C}$                          |     | 100 | $\mu\text{A}$ |
| $C_T$    | Total Capacitance     | $V_R = 0, f = 1.0 \text{ MHz}$                                         |     | 2.0 | pF            |
| $t_{rr}$ | Reverse Recovery Time | $I_F = I_R = 10 \text{ mA}, I_{RR} = 1.0 \text{ mA}, R_L = 100 \Omega$ |     | 4.0 | ns            |

\*Pulse test : Pulse width=300us, Duty Cycle=2%

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