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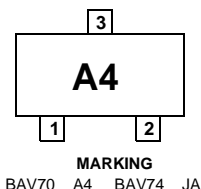
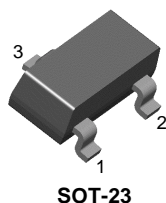
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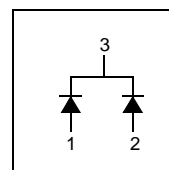
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BAV70 / 74



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 | BAV70 70 BAV74 50 | V V |
| $I_{F(AV)}$ | Average Rectified Forward Current | 200 | mA |
| I_{FSM} | Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second Pulse Width = 1.0 microsecond | 1.0 2.0 | A 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 the diode may be impaired.

NOTES:

- 1) These ratings are based on a maximum junction temperature of 150 degrees C.
- 2) These are steady 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 | BAV70 $I_R = 100\mu\text{A}$ BAV74 $I_R = 5.0\mu\text{A}$ | 75 50 | | V V |
| V_F | Forward Voltage | BAV70 $I_F = 1.0\text{mA}$ $I_F = 10\text{mA}$ $I_F = 50\text{mA}$ $I_F = 150\text{mA}$ BAV74 $I_F = 100\text{mA}$ | | 715 855 1.0 1.25 1.0 | mV mV V V V |
| I_R | Reverse Leakage | BAV70 $V_R = 25\text{V}, T_A = 150^\circ\text{C}$ $V_R = 70\text{V}$ BAV74 $V_R = 70\text{V}, T_A = 150^\circ\text{C}$ $V_R = 50\text{V}$ $V_R = 50\text{V}, T_A = 150^\circ\text{C}$ | | 60 5.0 100 100 100 | μA μA μA nA μA |
| C_T | Total Capacitance | BAV70 $V_R = 0\text{V}, f = 1.0\text{MHz}$ BAV74 $V_R = 0\text{V}, f = 1.0\text{MHz}$ | | 1.5 2.0 | pF pF |
| t_{rr} | Reverse Recovery Time | BAV70 $I_F = I_R = 10\text{mA}, I_{RR} = 1.0\text{mA}, R_L = 100\Omega$ BAV74 $I_F = I_R = 10\text{mA}, I_{RR} = 1.0\text{mA}, R_L = 100\Omega$ | | 6.0 4.0 | ns ns |

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|--------------------------|------------------------|---|
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