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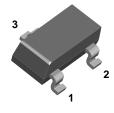
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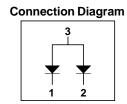
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# **BAS35**







**SOT-23** 

# **Small Signal Diode**

**Absolute Maximum Ratings\*** T, = 25°C unless otherwise noted

| Symbol             | Parameter  | Value       | Units  |
|--------------------|--|-------------|--------|
| $V_{RRM}$          | Maximum Repetitive Reverse Voltage   | 120         | V      |
| I <sub>F(AV)</sub> | Average Rectified Forward Current  | 200         | mA     |
| I <sub>FSM</sub>   | Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second Pulse Width = 1.0 microsecond | 1.0<br>2.0  | A<br>A |
| T <sub>stg</sub>   | Storage Temperature Range  | -55 to +150 | °C     |
| T <sub>J</sub>     | Operating Junction Temperature   | 150         | °C     |

### **Thermal Characteristics**

| Symbol          | Parameter                               | Value | Units |
|-----------------|---|-------|-------|
| $P_{D}$         | Power Dissipation                       | 350   | mW    |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient | 357   | °C/W  |

### **Electrical Characteristics** T<sub>A</sub> = 25°C unless otherwise noted

| Symbol          | Parameter             | Test Conditions  | Min | Max                              | Units               |
|-----------------|-----------------------|--|-----|----------------------------------|---------------------|
| $V_R$           | Breakdown Voltage     | I <sub>R</sub> = 1.0 mA  | 120 |                                  | V                   |
| V <sub>F</sub>  | Forward Voltage       | $I_F = 10 \text{ mA}$ $I_F = 50 \text{ mA}$ $I_F = 100 \text{ mA}$ $I_F = 200 \text{ mA}$ $I_F = 400 \text{ mA}$ |     | 750<br>840<br>900<br>1.0<br>1.25 | mV<br>mV<br>mV<br>V |
| I <sub>R</sub>  | Reverse Current       | $V_R = 90 \text{ V}$<br>$V_R = 90 \text{ V}, T_A = 150^{\circ}\text{C}$  |     | 100<br>100                       | nA<br>μA            |
| Ст              | Total Capacitance     | $V_R = 0$ , $f = 1.0 \text{ MHz}$  |     | 35                               | pF                  |
| t <sub>rr</sub> | Reverse Recovery Time | $I_F = I_R = 10 \text{ mA}, I_{RR} = 1.0 \text{ mA},$<br>$R_L = 100 \Omega$                                      |     | 50                               | ns                  |

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.

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