



BAV19 thru BAV21

Small-Signal Diode
Fast Switching Diodes

Features

- ◆ Silicon Epitaxial Planar Diode
- ◆ For general purpose
- ◆ This diode is also available in other case styles including: the MiniMELF case with the type designation BAV101 to BAV103.

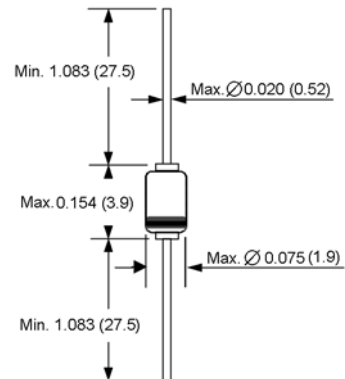


DO-204AH (DO-35 Glass)

Mechanical Data

- ◆ Case: DO-35 Glass Case
- ◆ Weight: approx. 0.13g

www.DataSheet4U.com



Dimensions in inches and (millimeters)

Maximum Ratings and Thermal Characteristics

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

| Parameter | Symbol | Limit | Unit | |
|--|-------------------------|-----------------|-------------------|--------------------|
| Continuous reverse voltage | BAV19 BAV20 BAV21 | V_R | 100 150 200 | Volts |
| Repetitive peak reverse voltage | BAV19 BAV20 BAV21 | V_{RRM} | 120 200 250 | Volts |
| Forward DC current at $T_{amb}=25^\circ\text{C}$ ⁽¹⁾ | | I_F | 250 | mA |
| Rectified current (Average) half wave rectification with resist. load at $T_{amb}=25^\circ\text{C}$ ⁽¹⁾ | | $I_{F(AV)}$ | 200 | mA |
| Repetitive peak forward current at $f=50\text{Hz}$, $\theta=180^\circ$, $T_{amb}=25^\circ\text{C}$ ⁽¹⁾ | | I_{FRM} | 625 | mA |
| Surge forward current at $t<1\text{s}$ and $T_J=25^\circ\text{C}$ | | I_{FSM} | 1.0 | Amp |
| Power dissipation at $T_{amb}=25^\circ\text{C}$ ⁽¹⁾ | | P_{tot} | 500 | mW |
| Thermal resistance junction to ambient air ⁽¹⁾ | | $R_{\theta JA}$ | 430 | $^\circ\text{C/W}$ |
| Junction temperature ⁽¹⁾ | | T_J | 175 | $^\circ\text{C}$ |
| Storage temperature range ⁽¹⁾ | | T_S | -65 to +175 | $^\circ\text{C}$ |

Notes: 1. Valid provided that leads are kept at ambient temperature at a distance of 8mm from case

Electrical Characteristics

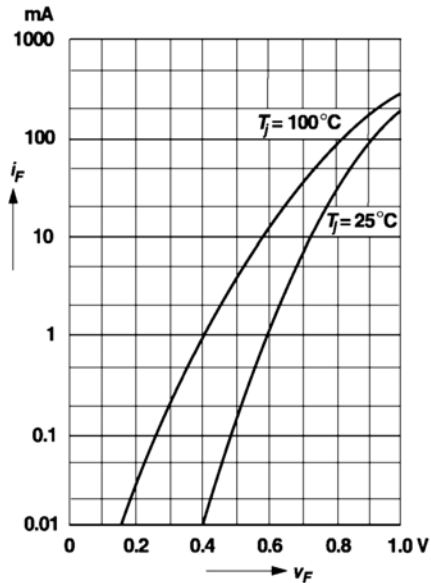
($T_J=25^\circ\text{C}$ unless otherwise noted.)

| Parameter | Symbol | Test Condition | Min. | Typ. | Max. | Unit |
|----------------------------|------------------|---|------|------|--------------|---------------|
| Forward voltage | V_F | $I_F=100\text{mA}$ $I_F=200\text{mA}$ | - | - | 1.00 1.25 | Volts |
| Leakage current | I_R | $V_R=100\text{V}$ | - | - | 100 | nA |
| | | $V_R=100\text{V}, T_J=100^\circ\text{C}$ | - | - | 15 | μA |
| | | $V_R=150\text{V}$ | - | - | 100 | nA |
| | | $V_R=150\text{V}, T_J=100^\circ\text{C}$ | - | - | 15 | μA |
| | | $V_R=200\text{V}$ | - | - | 100 | nA |
| | | $V_R=200\text{V}, T_J=100^\circ\text{C}$ | - | - | 15 | μA |
| Dynamic forward resistance | r_f | $I_F=10\text{mA}$ | - | 5 | - | Ω |
| Capacitance | C_{tot} | $V_R=0\text{V}, f=1\text{MHz}$ | - | 1.5 | - | pF |
| Reverse recovery time | t_{tr} | $I_F=30\text{mA}, I_R=30\text{mA}$ $I_F=3\text{mA}, R_L=100\Omega$ | - | - | 50 | ns |

RATINGS AND CHARACTERISTIC CURVES

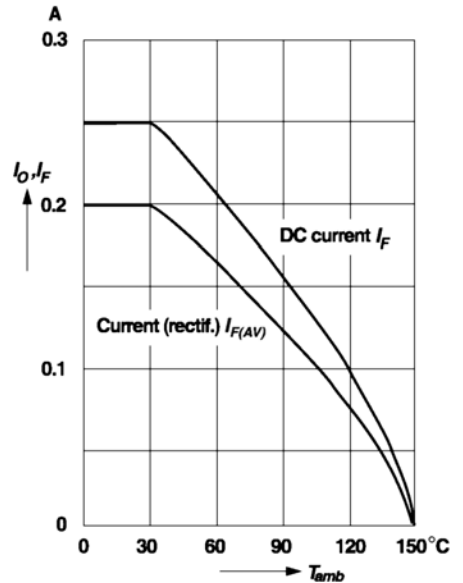
($T_A = 25^\circ\text{C}$ unless otherwise noted.)

Forward characteristics



Admissible forward current versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

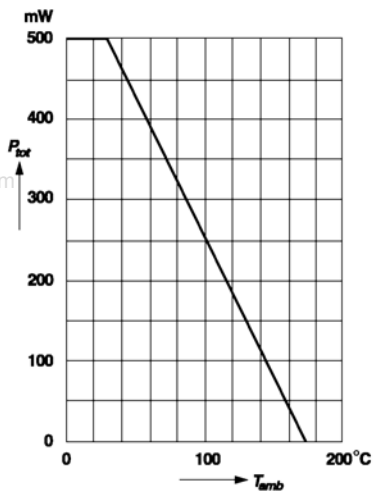


RATINGS AND CHARACTERISTIC CURVES

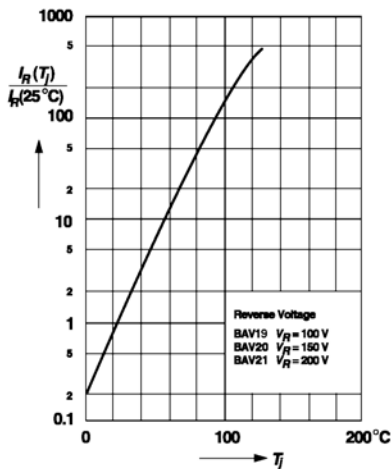
($T_A = 25^\circ\text{C}$ unless otherwise noted.)

Admissible power dissipation versus ambient temperature

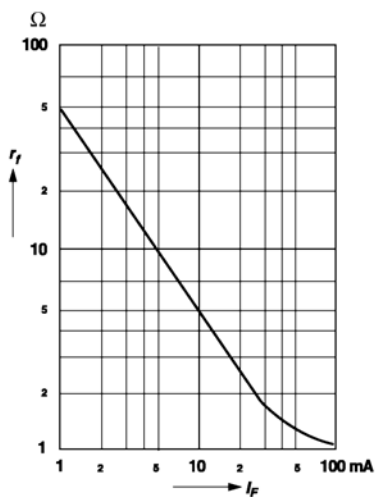
Valid provided that electrodes are kept at ambient temperature



Leakage current versus junction temperature



Dynamic forward resistance versus forward current



Capacitance versus reverse voltage

