

BAV100 THRU BAV103

Small Signal Diodes

Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Moisture Sensitivity Level 1
- Silicon Epitaxial Planar Diodes
- These diodes are also available in other case styles including: the DO-35 case with the type designations BAV19 to BAV21, the SOD-123 case with the type designations BAV19W to BAV21W, the SOT-23 case with the type designations BAS19 to BAS21, and the SOD-323 case with type designations BAV19WS to BAV21WS.

Maximum Ratings

| | | | | |
|---|--------------------------------------|----------------|-----------------------------|--|
| Continuous Reverse Voltage | BAV100 BAV101 BAV102 BAV103 | V_R | 50V 100V 150V 200V | $T_A=25^\circ\text{C}$ |
| Repetitive Peak Reverse Voltage | BAV100 BAV101 BAV102 BAV103 | V_{RRM} | 60V 120V 200V 250V | $T_A=25^\circ\text{C}$ |
| Forward DC Current | | I_F | 250mA | $T_A=25^\circ\text{C}^{(1)}$ |
| Rectified Current (Average) Half Wave Rectification with Resist. Load | | $I_{(FAV)}$ | 200mA | $f>50\text{Hz}$, $T_A=25^\circ\text{C}$ |
| Repetitive Peak Forward Current | | I_{FRM} | 625mA | $f>50\text{Hz}$, $T_A=25^\circ\text{C}^{(1)}$ |
| Surge Forward Current | | I_{FSM} | 1.0A | $T<1\text{s}$, $T_J=25^\circ\text{C}$ |
| Power Dissipation | | P_{TOT} | 400mW | $T_A=25^\circ\text{C}$ |
| Thermal Resistance Junction to Ambient Air ⁽²⁾ | | T_A | 375°C/W | |
| Operating and Storage temperature Range | | T_S, T_{STG} | -55 to +150°C | |

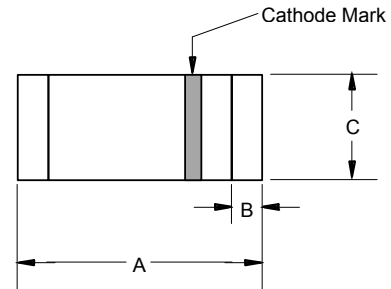
Note: (1) Valid provided that electrodes are kept at ambient temperature

Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | | |
|------------------------------------|--|-----------|--|--|
| Maximum Forward Voltage | $I_F=100\text{mA}$ $I_F=200\text{mA}$ | V_F | 1.00V 1.25V | $T_A=25^\circ\text{C}$ |
| Maximum Leakage current | BAV100 BAV101 BAV102 BAV103 | I_R | 100nA 15uA 100nA 15uA 100nA 15uA 100nA 15uA | $V_R=50\text{V}$ $V_R=50\text{V}, T_J=100^\circ\text{C}$ $V_R=100\text{V}$ $V_R=100\text{V}, T_J=100^\circ\text{C}$ $V_R=150\text{V}$ $V_R=150\text{V}, T_J=100^\circ\text{C}$ $V_R=200\text{V}$ $V_R=200\text{V}, T_J=100^\circ\text{C}$ |
| Typical Capacitance | | C_{TOT} | 1.5pF | $V_R=0\text{V}$, $f=1.0\text{MHz}$ |
| Maximum Reverse recovery time | | t_{rr} | 50ns | $I_F=30\text{mA}$, $I_R=30\text{mA}$ $I_F=3.0\text{mA}$, $R_L=100\text{OHM}$ |
| Typical Dynamic Forward Resistance | | R_F | 5.0 OHM | $I_F=10\text{mA}$ |

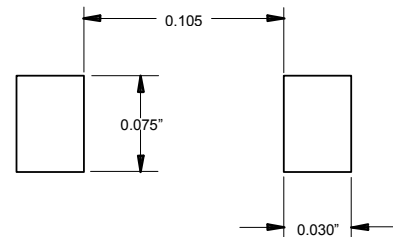
Notes: 1. Lead in Glass Exemption Applied, see EU Directive Annex 5.
 2. Valid provided that electrodes are kept at ambient temperature

MINIMELF(SOD-80C)

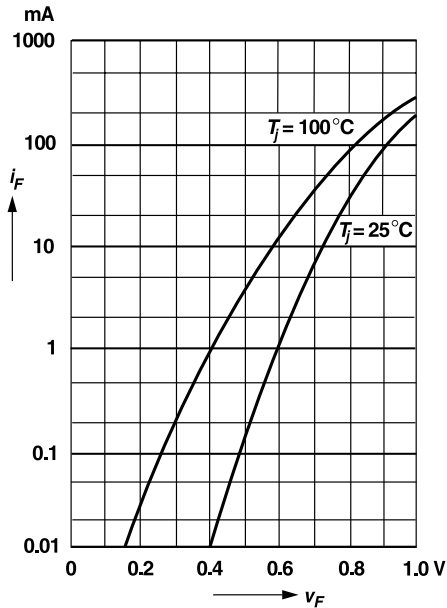


| DIM | DIMENSION | | | | NOTE |
|-----|-----------|------|------|------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | .130 | .146 | 3.30 | 3.70 | |
| B | .008 | .016 | 0.20 | 0.40 | |
| C | .055 | .059 | 1.40 | 1.50 | |

SUGGESTED SOLDER PAD LAYOUT

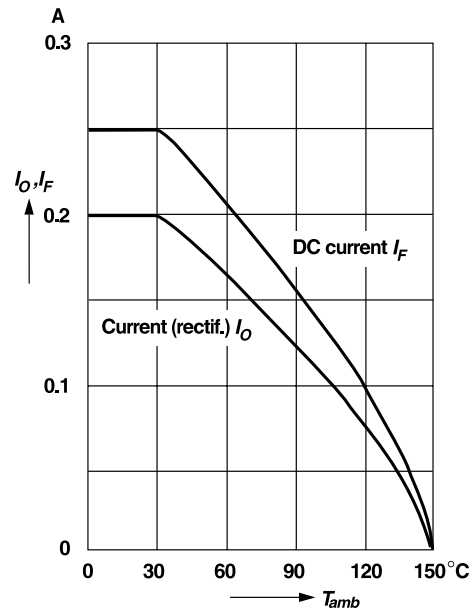


Forward characteristics



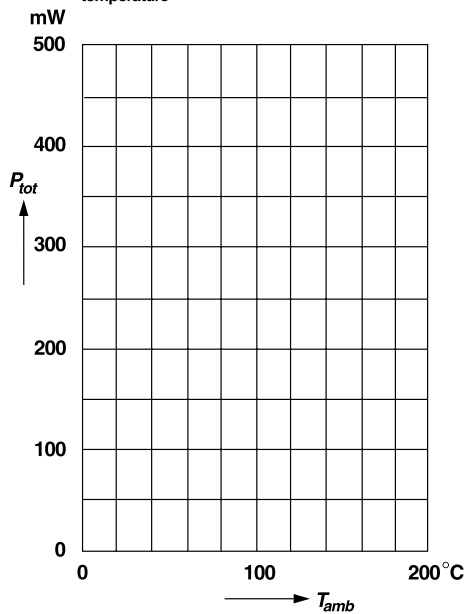
Admissible forward current versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

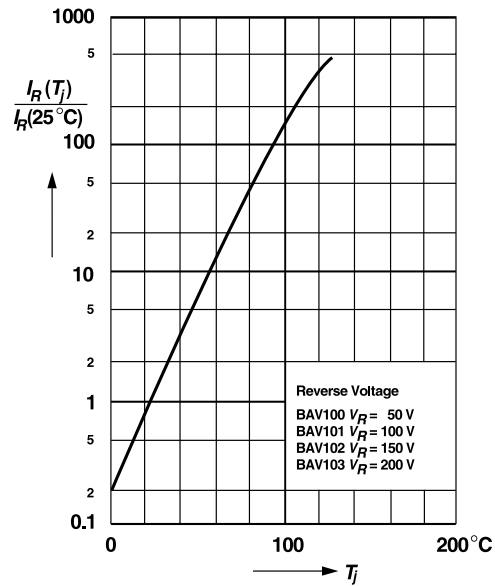


Admissible power dissipation versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

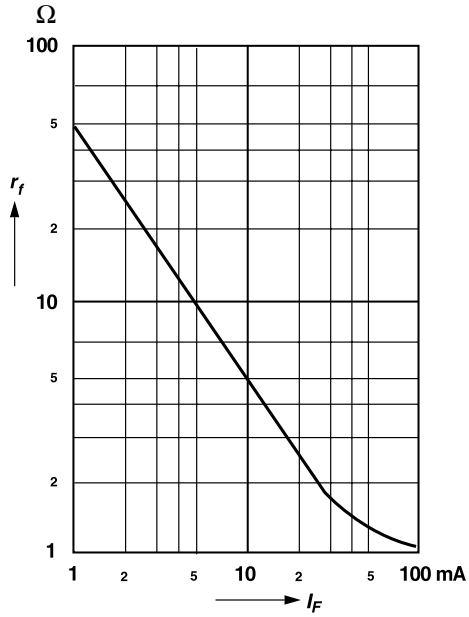


Leakage current versus junction temperature

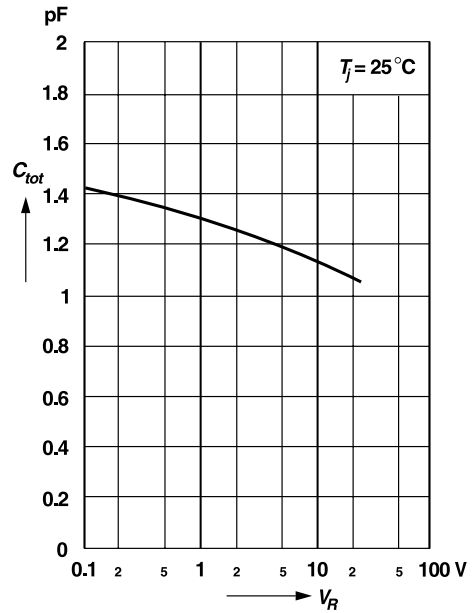


BAV100 thru BAV103

Dynamic forward resistance
versus forward current



Capacitance
versus reverse voltage





Micro Commercial Components

Ordering Information :

| Device | Packing |
|----------------|-------------------------|
| Part Number-TP | Tape&Reel: 2.5Kpcs/Reel |

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