

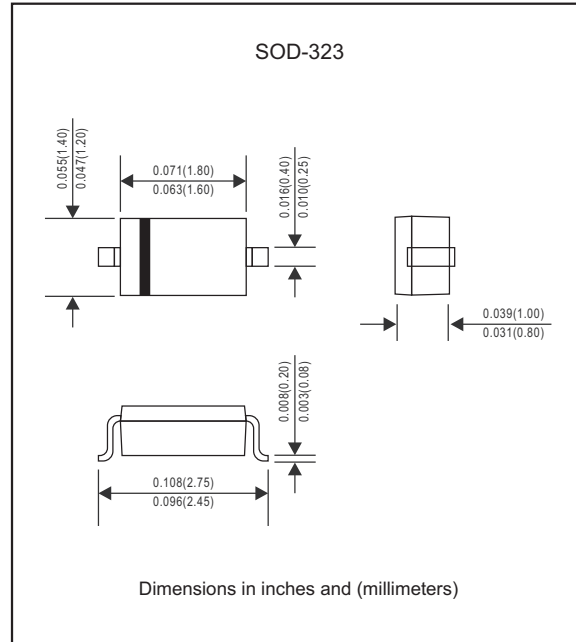
Features

- Low Reverse Current.
- Surface Mount Package Ideally Suited for Automatic Insertion.
- Fast Switching Speed.
- For General Purpose Switching Applications.
- Silicon epitaxial planar chip.
- Lead-free parts meet RoHS requirements.
- Compliant to Halogen-free

Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-323
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Mounting Position : Any

Package outline

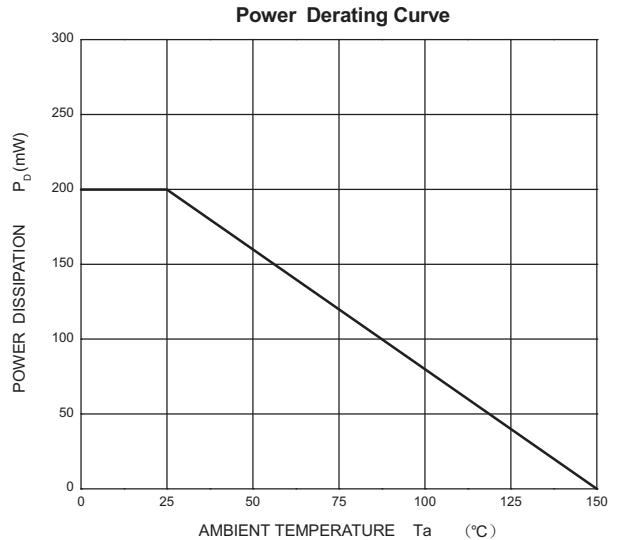
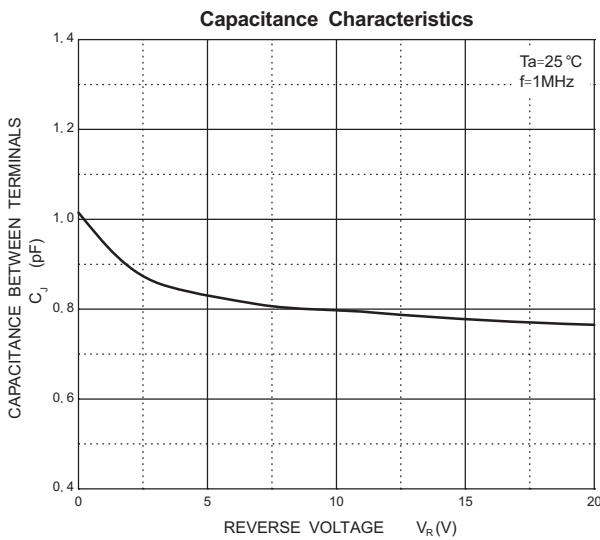
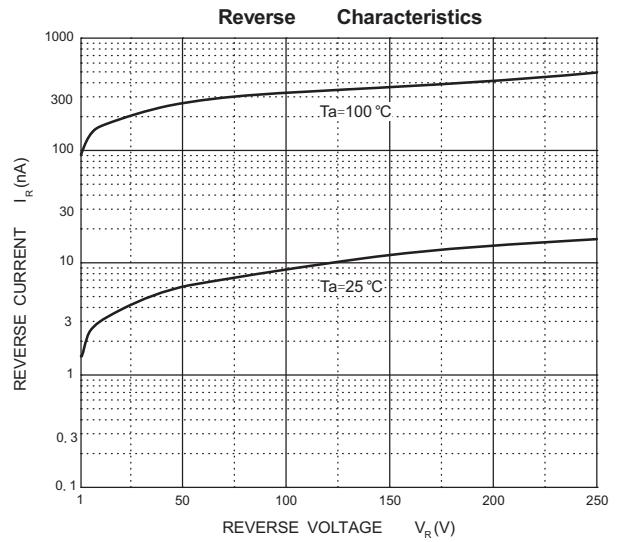
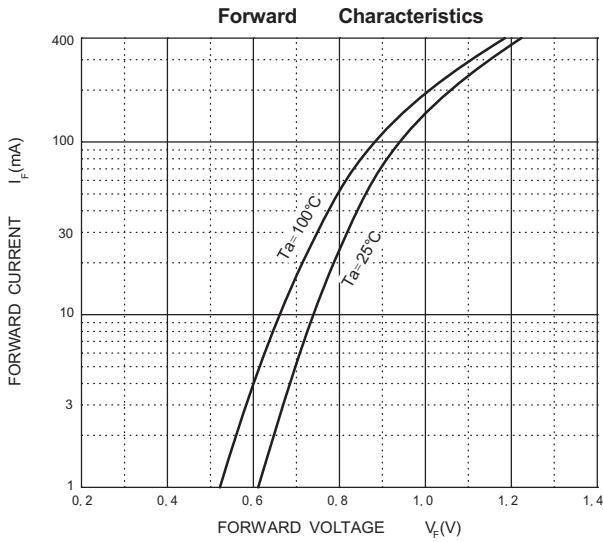


Maximum ratings and Electrical Characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)



| PARAMETER | CONDITIONS | Symbol | BAV19WS | BAV20WS | BAV21WS | UNIT |
|---|---|-----------------|--------------|---------|---------|--------------------|
| Non-repetitive peak reverse voltage | | V_{RRM} | 120 | 200 | 250 | V |
| Working Peak Reverse Voltage | | V_R | 100 | 150 | 200 | V |
| RMS Reverse Voltage | | $V_{R(RMS)}$ | 70 | 105 | 140 | V |
| Average rectified output current(1) | | I_O | 200 | | | mA |
| Non-repetitive peak forward surge current | @t = 8.3ms | I_{FSM} | 1.7 | | | A |
| Peak Forward Surge Current | | I_{FRM} | 625 | | | mA |
| Power dissipation | | P_D | 200 | | | mW |
| Typical Thermal resistance | Junction to ambient air(1) | $R_{\theta JA}$ | 625 | | | $^\circ\text{C/W}$ |
| Operating junction temperature range | | T_J | -55 ~ +150 | | | $^\circ\text{C}$ |
| Storage temperature range | | T_{STG} | -55 ~ +150 | | | $^\circ\text{C}$ |
| Maximum Forward voltage | $I_F = 100\text{ mA}$ $I_F = 200\text{ mA}$ | V_F | 1.00 1.25 | | | V |
| Maximum Reverse leakage current | @ Working Peak Reverse Voltage | I_R | 100 | | | nA |
| Maximum Total capacitance | $V_R = 0\text{ V}$, $f = 1.0\text{ MHz}$ | C_J | 5.0 | | | pF |
| Maximum Reverse recovery time | $I_F = I_R = 30\text{ mA}$, $I_{RR} = 0.1 \times I_R$, $R_L = 100_{\Omega}$ | t_{rr} | 50 | | | ns |

Note 1. Valid provided that electrodes are kept at ambient temperature.

Rating and characteristic curves(BAV19WS THRU BAV21WS)



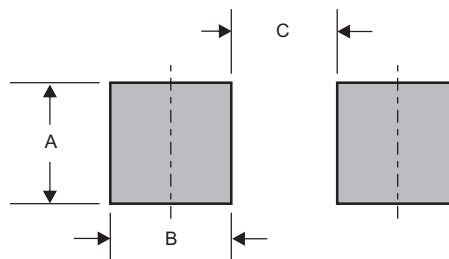
Pinning information

| Pin | Simplified outline | Symbol |
|----------------------------|---|---|
| Pin1 cathode Pin2 anode |  |  |

Marking

| Type number | Marking code |
|-------------|--------------|
| BAV19WS | A8 |
| BAV20WS | T2 |
| BAV21WS | T3 |

Suggested solder pad layout



Dimensions in inches and (millimeters)

| PACKAGE | A | B | C |
|---------|--------------|--------------|--------------|
| SOD-323 | 0.032 (0.82) | 0.022 (0.56) | 0.069 (1.75) |