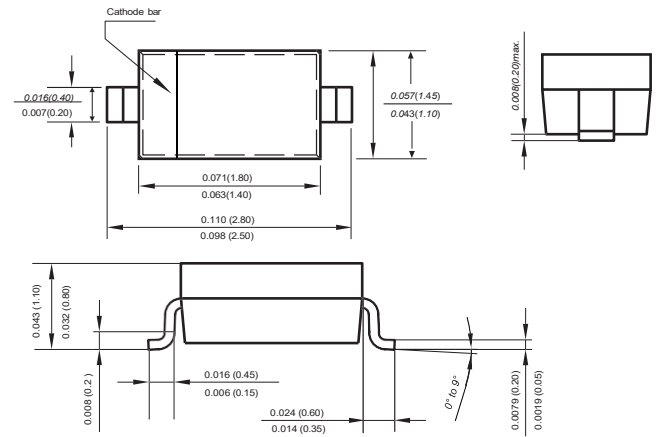


## FAST SWITCHING DIODES

## Features

- ◆ For surface mounted applications
- ◆ Glass Passivated Chip Junction
- ◆ Fast reverse recovery time
- ◆ Ideal for automated placement

**SOD-323**



Dimensions in inches and (millimeters)

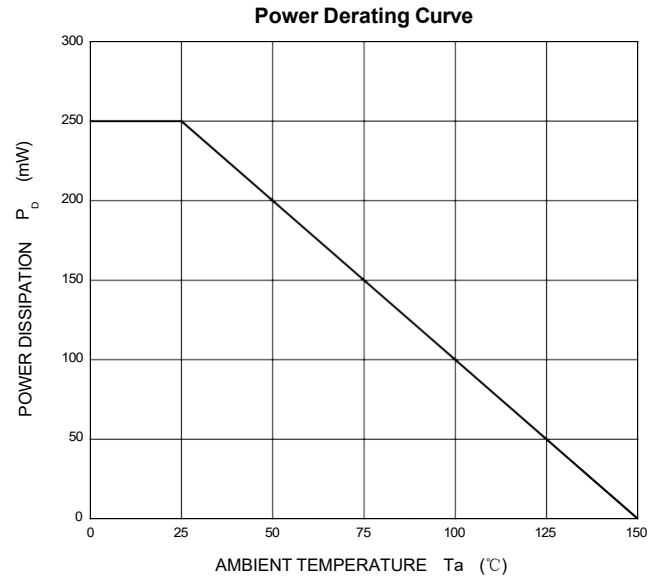
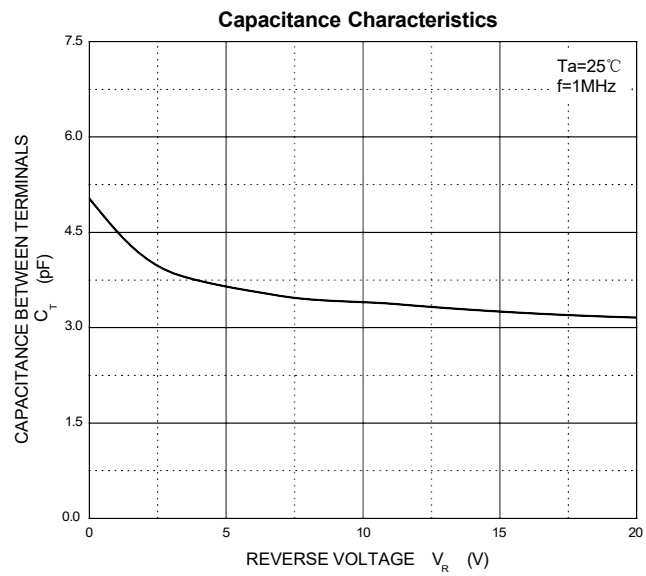
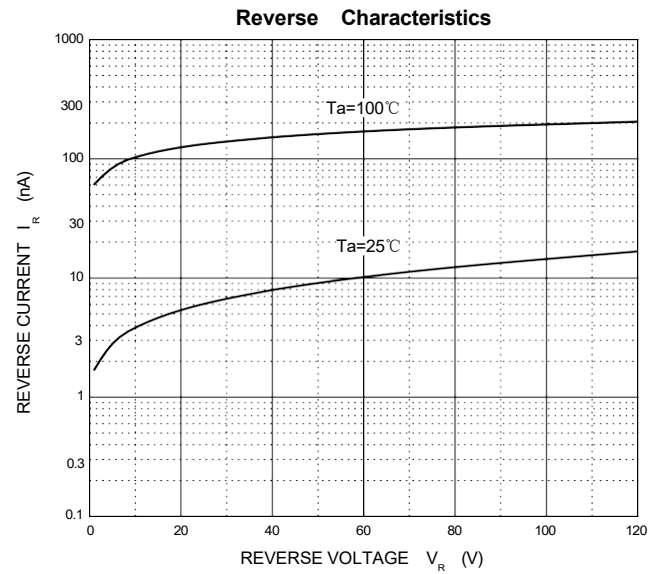
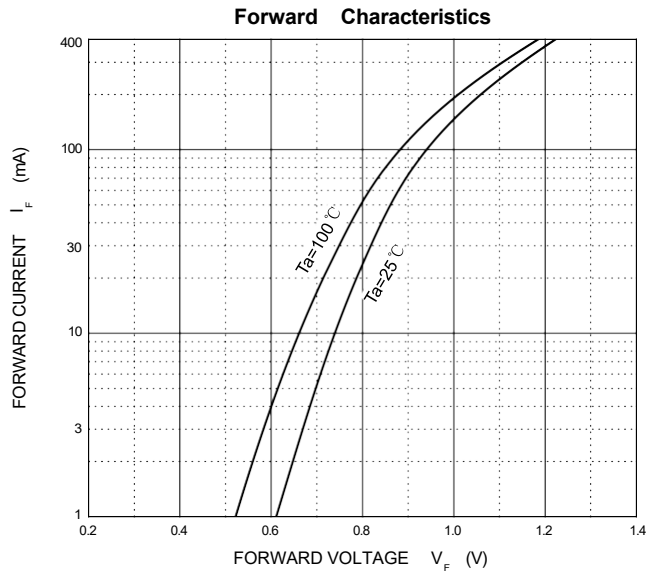
### Absolute Maximum Ratings at 25 °C

| PARAMETER                                                       | SYMBOLS      | BAV19WS     | BAV20WS | BAV21WS | UNITS |
|-----------------------------------------------------------------|--------------|-------------|---------|---------|-------|
| Maximum Repetitive Peak Reverse Voltage                         | $V_{RRM}$    | 120         | 200     | 250     | V     |
| Maximum RMS voltage                                             | $V_{R(RMS)}$ | 100         | 150     | 200     | V     |
| Continuous Forward Current                                      | $I_o$        | 250         |         |         | mA    |
| Repetitive Peak Forward Current                                 | $I_{FM}$     | 625         |         |         | mA    |
| Non-reptitive Peak forward surge current @=1s<br>@=1ms<br>@=1us | $I_{FSM}$    | 1<br>3<br>9 |         |         | A     |
| Total Power dissipation                                         | $P_{tot}$    | 500         |         |         | mW    |
| Operating junction temperature                                  | $T_j$        | -55 to +150 |         |         | °C    |
| Storage temperature                                             | $T_{STG}$    | -55 to +150 |         |         | °C    |

### Characteristics at Ta= 25 °C

| Parameter             | Symbol           | Test conditions                                                                        |                        | Min | Typ | Max  | Unit |
|-----------------------|------------------|----------------------------------------------------------------------------------------|------------------------|-----|-----|------|------|
| Reverse current       | I <sub>R</sub>   | V <sub>R</sub> =120V      BAV19WS                                                      | T <sub>a</sub> =25 °C  |     |     | 0.1  | uA   |
|                       |                  |                                                                                        | T <sub>a</sub> =150 °C |     |     | 100  |      |
|                       |                  | V <sub>R</sub> =200V      BAV20WS                                                      | T <sub>a</sub> =25 °C  |     |     | 0.1  | uA   |
|                       |                  |                                                                                        | T <sub>a</sub> =150 °C |     |     | 100  |      |
|                       |                  | V <sub>R</sub> =250V      BAV21WS                                                      | T <sub>a</sub> =25 °C  |     |     | 0.1  |      |
|                       |                  |                                                                                        | T <sub>a</sub> =150 °C |     |     | 100  |      |
| Forward voltage       | V <sub>F</sub>   | I <sub>F</sub> =100mA                                                                  |                        |     |     | 1    | V    |
|                       |                  | I <sub>F</sub> =200mA                                                                  |                        |     |     | 1.25 |      |
| Total capacitance     | C <sub>tot</sub> | V <sub>R</sub> =0V,f=1MHz                                                              |                        |     |     | 5    | pF   |
| Reverse recovery time | t <sub>rr</sub>  | I <sub>F</sub> =0.5A I <sub>R</sub> =1A, I <sub>rr</sub> =0.25A , R <sub>L</sub> =100Ω |                        |     |     | 50   | ns   |

## Typical Characteristics



The curve above is for reference only.