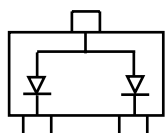


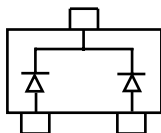
## FEATURES

- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance

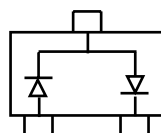
## SOT-23



BAW56 Marking: A1



BAV70 Marking: A4



BAV99 Marking: A7

## Maximum Ratings @T<sub>A</sub>=25°C

| Parameter                                  | Symbol                 | Limits  | Unit |
|--------------------------------------------|------------------------|---------|------|
| Reverse voltage                            | V <sub>R</sub>         | 70      | V    |
| Forward Current                            | I <sub>F</sub>         | 200     | mA   |
| Peak Forward Surge Current                 | I <sub>FM(surge)</sub> | 500     | mA   |
| Power Dissipation                          | P <sub>D</sub>         | 225     | mW   |
| Thermal Resistance Junction to Ambient Air | R <sub>θJA</sub>       | 556     | °C/W |
| Junction temperature                       | T <sub>J</sub>         | 150     | °C   |
| Storage temperature range                  | T <sub>STG</sub>       | -55-150 | °C   |

## Electrical Characteristics @T<sub>A</sub>=25°C

| Parameter                     | Symbol          | Min. | Typ. | Max.  | Unit | Conditions                                                                                                |
|-------------------------------|-----------------|------|------|-------|------|-----------------------------------------------------------------------------------------------------------|
| Reverse Breakdown Voltage     | V <sub>R</sub>  | 70   |      |       | V    | I <sub>R</sub> =100μA                                                                                     |
| Forward voltage               | V <sub>F1</sub> |      |      | 0.715 | V    | I <sub>F</sub> =1mA                                                                                       |
|                               | V <sub>F2</sub> |      |      | 0.855 | V    | I <sub>F</sub> =10mA                                                                                      |
|                               | V <sub>F3</sub> |      |      | 1     | V    | I <sub>F</sub> =50mA                                                                                      |
|                               | V <sub>F4</sub> |      |      | 1.25  | V    | I <sub>F</sub> =150mA                                                                                     |
| Reverse current               | I <sub>R</sub>  |      |      | 2.5   | μA   | V <sub>R</sub> =70V                                                                                       |
| Capacitance between terminals | C <sub>T</sub>  |      |      | 1.5   | pF   | V <sub>R</sub> =0, f=1MHz                                                                                 |
| Reverse recovery time         | t <sub>rr</sub> |      |      | 6     | ns   | I <sub>F</sub> = I <sub>R</sub> = 10mA,<br>I <sub>rr</sub> = 0.1 x I <sub>R</sub> , R <sub>L</sub> = 100Ω |

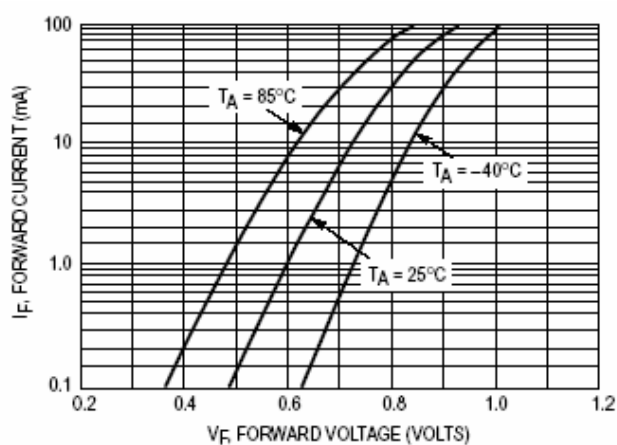


Figure 1. Forward Voltage

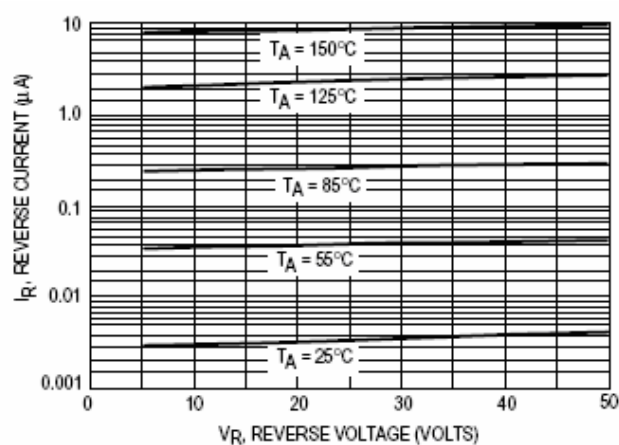


Figure 2 Leakage Current

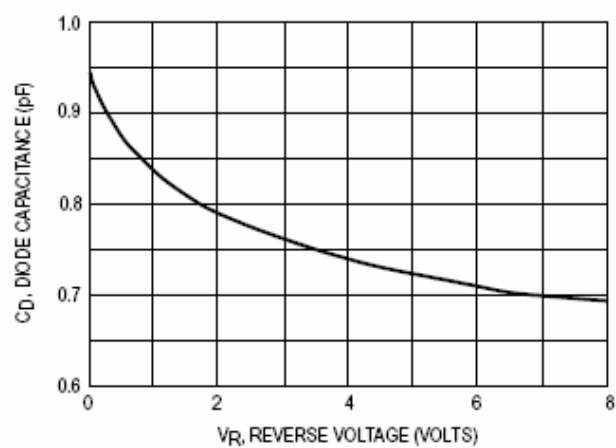


Figure 3 Capacitance