# BAW56/BAV70/BAV99

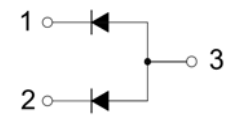
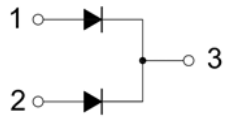
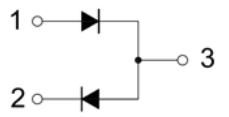
SWITCHING DIODE

**FEATURES**

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

**SOT-23**

1. BASE
2. EMITTER
3. COLLECTOR

| BAW56 | BAV70 | BAV99 |
|---|---|---|
|  |  |  |



## Maximum Ratings @Ta=25℃

| Parameter | Symbol | Limit | Unit |
|---|---|---|---|
| **Reverse Voltage** | $V_R$ | 70 | V |
| **Forward Current** | $I_F$ | 200 | mA |
| **Non-Repetitive Peak Forward Surge Current @t=8.3ms** | $I_{FSM}$ | 2.0 | A |
| **Power Dissipation** | $P_D$ | 225 | mW |
| **Thermal Resistance Junction to Ambient** | $R_{\theta JA}$ | 556 | ℃/W |
| **Junction Temperature** | $T_J$ | 150 | ℃ |
| **Storage Temperature range** | $T_{STG}$ | -55~+150 | ℃ |

## Electrical Characteristics @Ta=25℃

| Parameter | Symbol | Min | Typ | Max | Unit | Conditions |
|---|---|---|---|---|---|---|
| **Reverse breakdown voltage** | $V_R$ | 70 | | | V | $I_R$=100μA |
| **Forward voltage** | $V_{F1}$ | | | 0.715 | V | $I_F$=1mA |
| | $V_{F2}$ | | | 0.855 | V | $I_F$=10mA |
| | $V_{F3}$ | | | 1 | V | $I_F$=50mA |
| | $V_{F4}$ | | | 1.25 | V | $I_F$=150mA |
| **Reverse current** | $I_R$ | | | 2.5 | μA | $V_R$=70V |
| **Capacitance between terminals** | $C_T$ | | | 1.5 | pF | $V_R$=0,f=1MHz |
| **Reverse recovery time** | $t_{rr}$ | | | 6 | ns | $I_F$ = $I_R$ = 10mA, Irr= 0.1 x $I_R$, $R_L$ = 100Ω |

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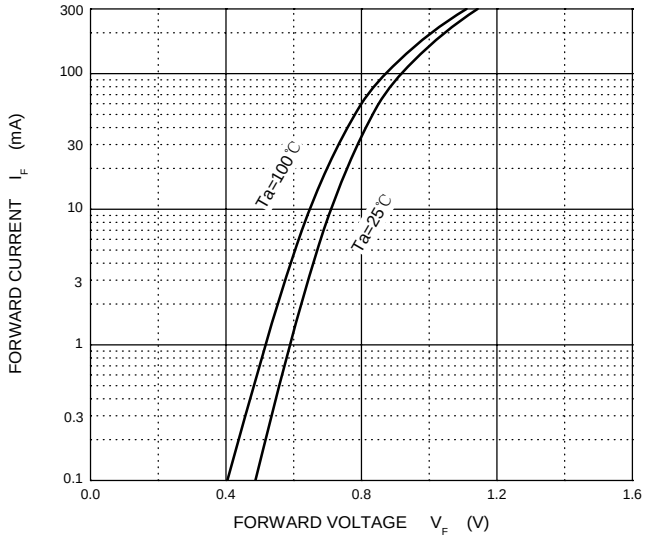
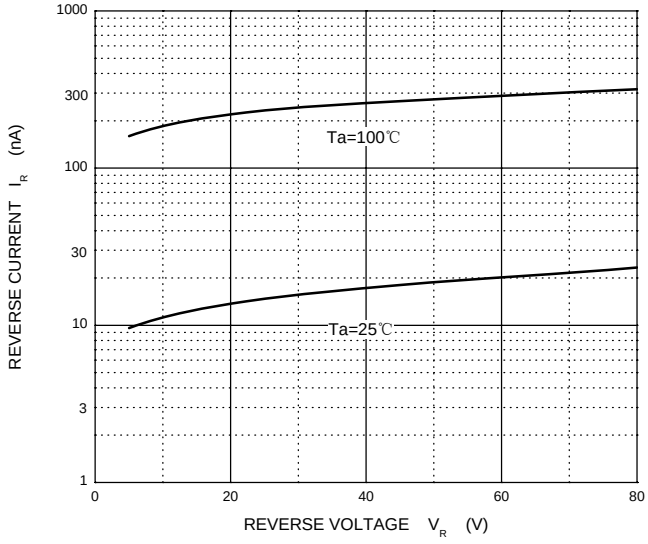
## Typical Characteristics

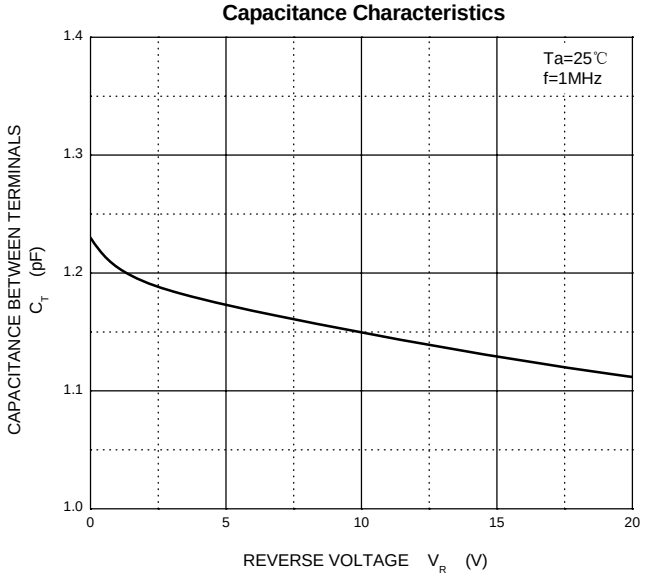
### Forward Characteristics



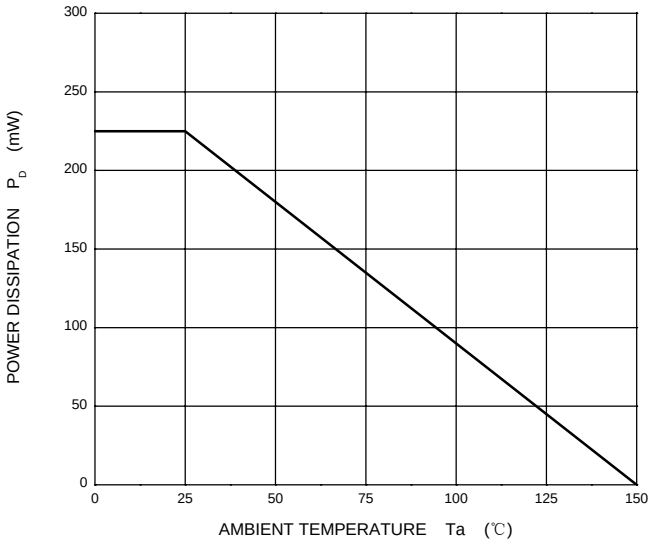

### Reverse Characteristics




### Capacitance Characteristics




### Power Derating Curve

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