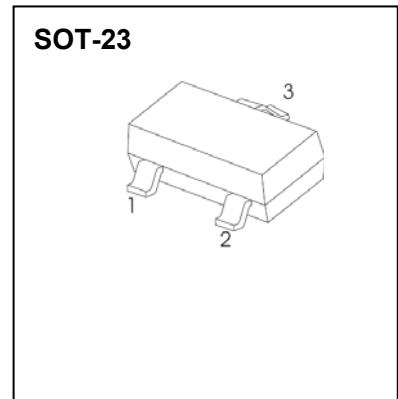


# SOT-23 Plastic-Encapsulate Diodes

## BAW56/BAV70/BAV99 SWITCHING DIODE

### FEATURES

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



| BAW56             | BAV70             | BAV99             |
|-------------------|-------------------|-------------------|
|                   |                   |                   |
| <b>MARKING:A1</b> | <b>MARKING:A4</b> | <b>MARKING:A7</b> |
|                   |                   |                   |

### Maximum Ratings @Ta=25°C

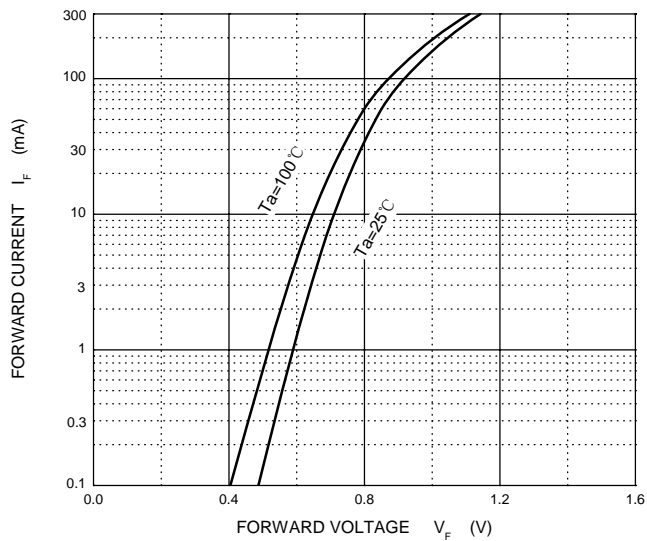
| Parameter  | Symbol          | Limit    | Unit |
|--|-----------------|----------|------|
| Reverse Voltage                                    | $V_R$           | 70       | V    |
| Forward Current                                    | $I_F$           | 200      | mA   |
| Non-Repetitive Peak Forward 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      | °C/W |
| Junction Temperature                               | $T_J$           | 150      | °C   |
| Storage Temperature range                          | $T_{STG}$       | -55~+150 | °C   |

### Electrical Characteristics @Ta=25°C

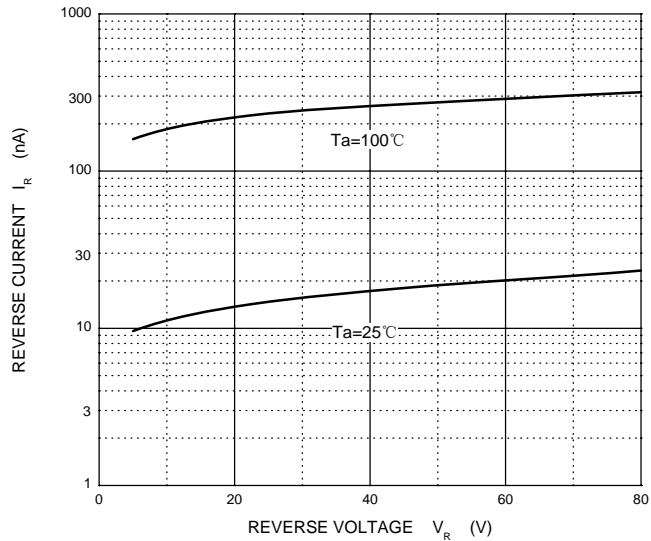
| Parameter                     | Symbol   | Min | Typ | Max   | Unit    | Conditions  |
|-------------------------------|----------|-----|-----|-------|---------|---|
| Reverse breakdown voltage     | $V_R$    | 70  |     |       | V       | $I_R=100\mu A$  |
| Forward voltage               | $V_{F1}$ |     |     | 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   | $\mu A$ | $V_R=70V$   |
| Capacitance between terminals | $C_T$    |     |     | 1.5   | pF      | $V_R=0, f=1MHz$   |
| Reverse recovery time         | $t_{rr}$ |     |     | 6     | ns      | $I_F = I_R = 10mA,$<br>$I_{rr} = 0.1 \times I_R, R_L = 100\Omega$ |

# Typical Characteristics

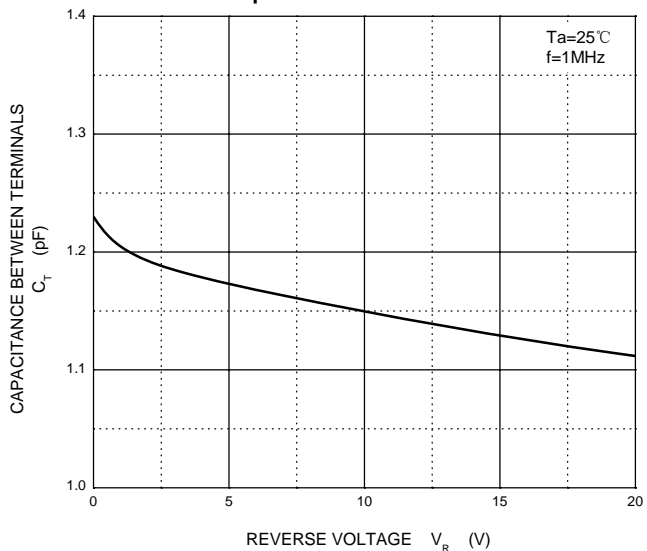
### Forward Characteristics



### Reverse Characteristics



### Capacitance Characteristics



### Power Derating Curve

