



**POWER SKY (H.K.) LTD.**

## **SOT-23 Plastic-Encapsulate Diodes**

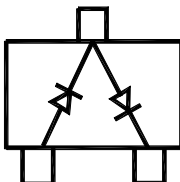
**BAV199** SWITCHING DIODE

**SOT-23**

### **FEATURES**

- This switching diode has the following features:
- Low Leakage Current Applications

Marking: JY



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

| Parameter                           | Symbol    | Limits  | Unit |
|-------------------------------------|-----------|---------|------|
| Non-Repetitive Peak reverse voltage | $V_{RM}$  | 70      | V    |
| DC Blocking Voltage                 | $V_R$     | 70      | V    |
| Forward Continuous Current          | $I_{FM}$  | 500     | mA   |
| Average Rectified Output Current    | $I_O$     | 215     | mA   |
| Power Dissipation                   | $P_D$     | 200     | mW   |
| Junction temperature                | $T_J$     | 125     | °C   |
| Storage temperature range           | $T_{STG}$ | -55-125 | °C   |

### **ELECTRICAL CHARACTERISTICS (T<sub>amb</sub>=25°C unless otherwise specified)**

| Parameter                       | Symbol     | Test conditions                                              | MIN | MAX                         | UNIT    |
|---------------------------------|------------|--------------------------------------------------------------|-----|-----------------------------|---------|
| Reverse breakdown voltage       | $V_{(BR)}$ | $I_R = 100\mu A$                                             | 70  |                             | V       |
| Reverse voltage leakage current | $I_R$      | $V_R = 70V$                                                  |     | 5                           | nA      |
| Forward voltage                 | $V_F$      | $I_F = 1mA$<br>$I_F = 10mA$<br>$I_F = 50mA$<br>$I_F = 150mA$ |     | 900<br>1000<br>1100<br>1250 | mV      |
| Diode capacitance               | $C_D$      | $V_R = 0, f = 1MHz$                                          |     | 2                           | pF      |
| Reverse recovery time           | $t_{rr}$   | $I_F = I_R = 10mA$                                           |     | 3                           | $\mu S$ |

# Typical Characteristics

# BAV199

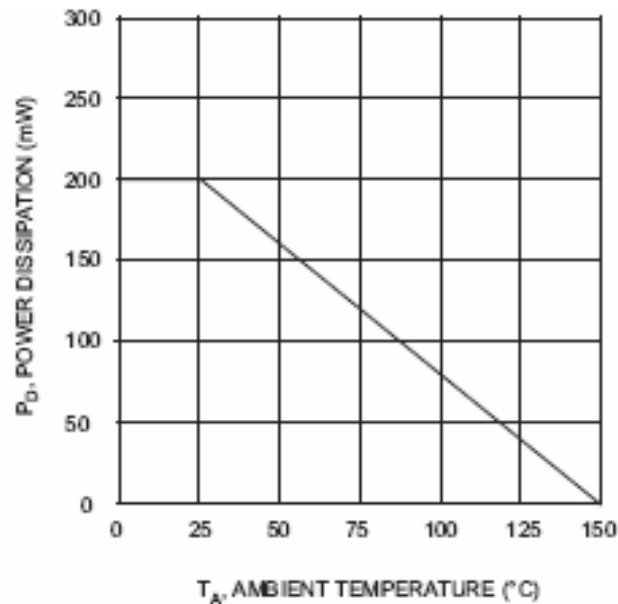


Fig. 1 Power Derating Curve

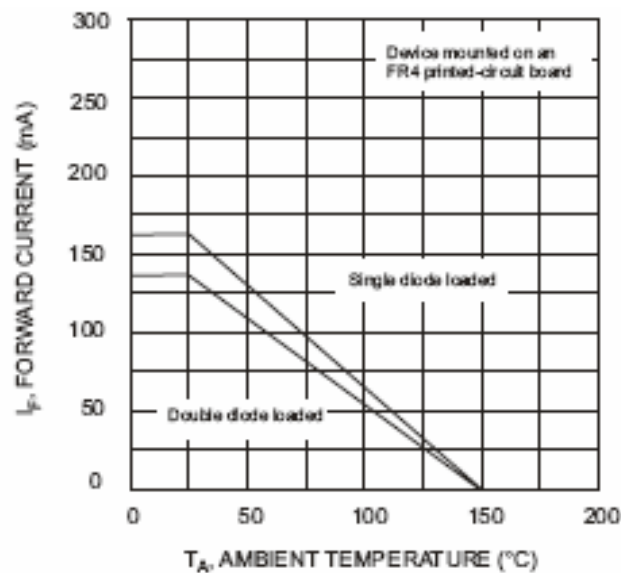


Fig. 2 Current Derating Curve

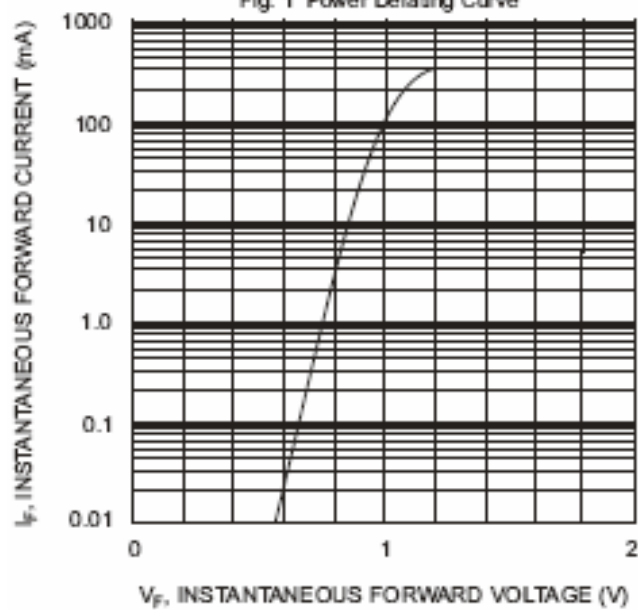


Fig. 3 Typical Forward Characteristics

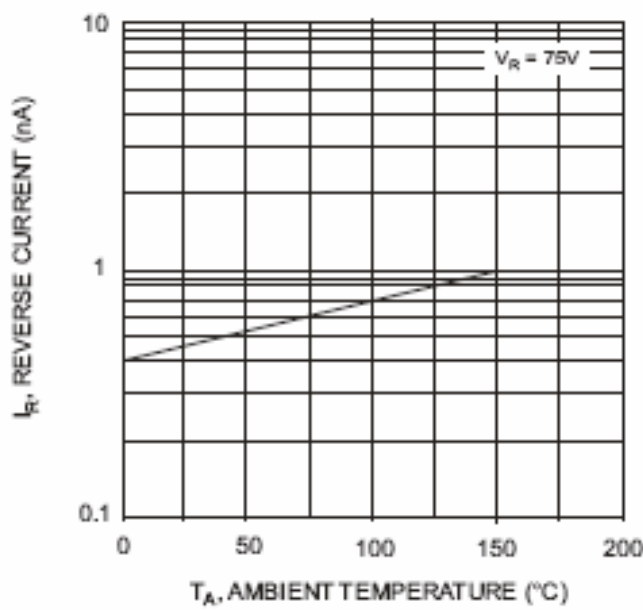


Fig. 4 Typical Reverse Characteristics