



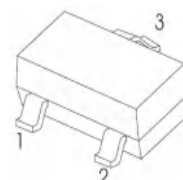
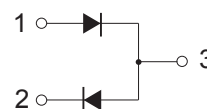
### BAV 199 SWITCHING DIODE

#### FEATURES

This Switching Diode has The Following Features:

Low Leakage Current Applications

Marking: JY



SOT-23

#### Maximum Ratings @Ta=25°C

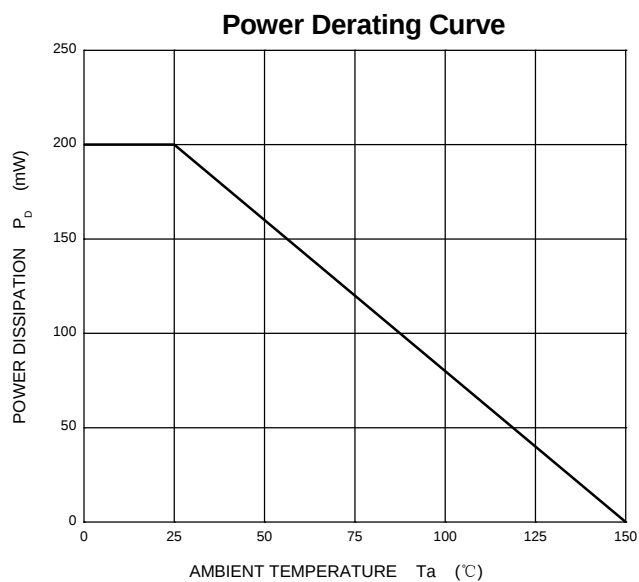
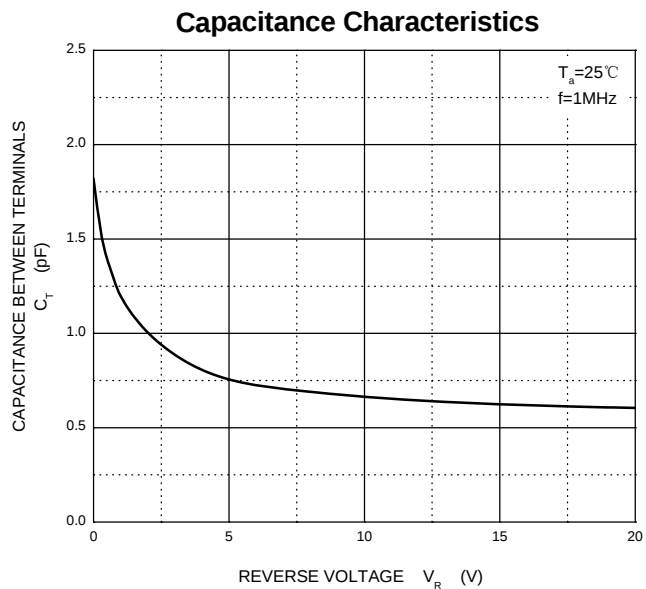
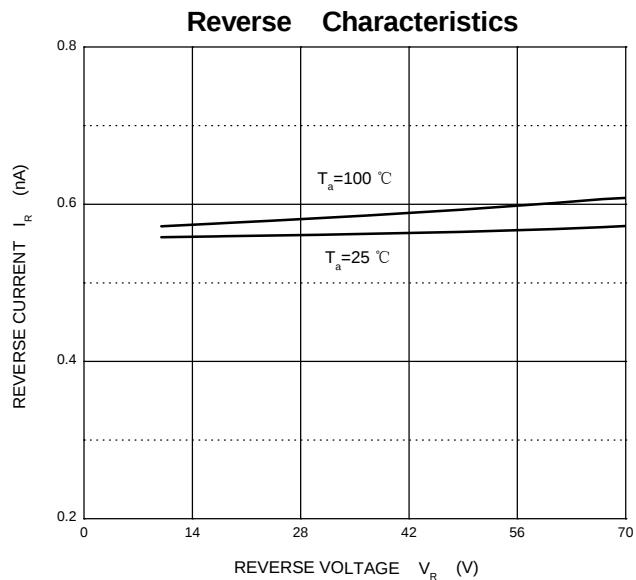
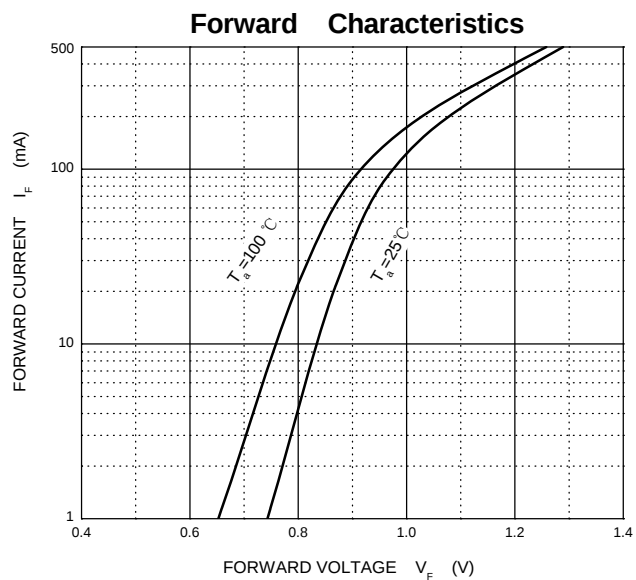
| Parameter                                             | Symbol    | Limit    | Unit |
|-------------------------------------------------------|-----------|----------|------|
| Non-Repetitive Peak Reverse Voltage                   | $V_{RM}$  | 70       | V    |
| DC Blocking Voltage                                   | $V_R$     | 70       | V    |
| Forward Continuous Current                            | $I_{FM}$  | 500      | mA   |
| Average Rectified Output Current                      | $I_O$     | 215      | mA   |
| Non-Repetitive Peak Forward Surge Current<br>@t=8.3ms | $I_{FSM}$ | 1.0      | A    |
| Power Dissipation                                     | $P_D$     | 200      | mW   |
| Junction Temperature                                  | $T_J$     | 150      | °C   |
| Storage Temperature Range                             | $T_{STG}$ | -55~+150 | °C   |

#### ELECTRICAL CHARACTERISTICS (Ta=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

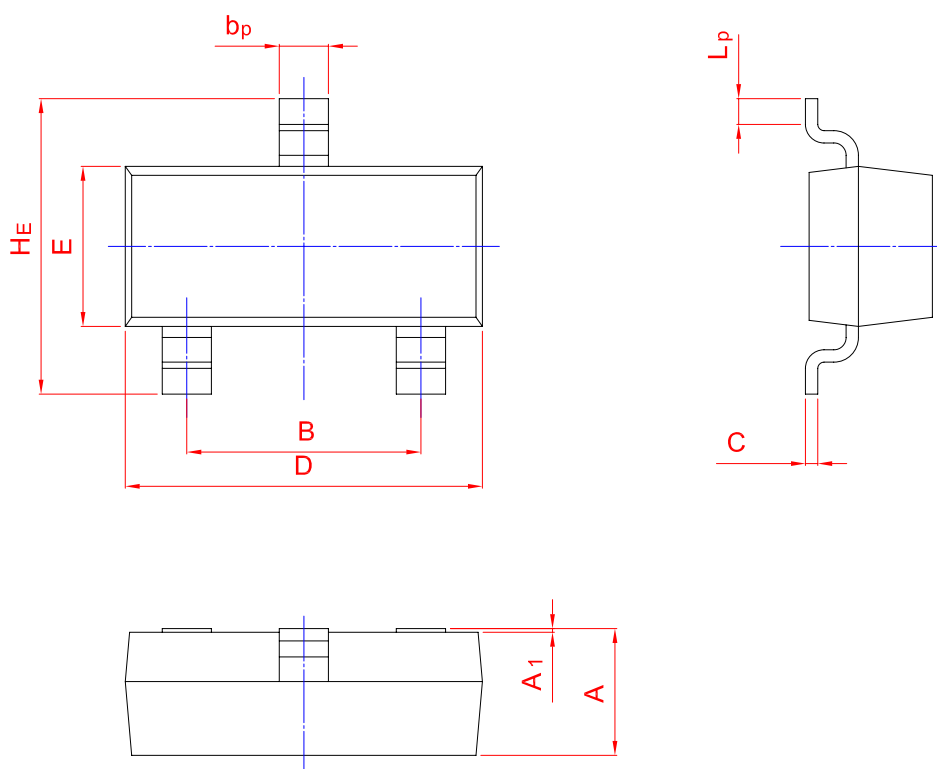
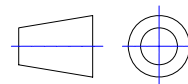




## PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



| UNIT | A            | B            | bp           | C            | D            | E            | HE           | A1             | Lp           |
|------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|--------------|
| mm   | 1.40<br>0.95 | 2.04<br>1.78 | 0.50<br>0.35 | 0.19<br>0.08 | 3.10<br>2.70 | 1.65<br>1.20 | 3.00<br>2.20 | 0.100<br>0.013 | 0.50<br>0.20 |