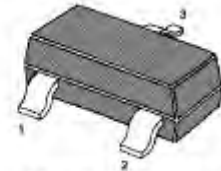
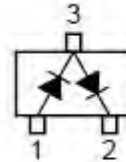


## BAV99 SWITCHING DIODES

### FEATURES

Fast Switching Speed  
 For General Purpose Switching Applications  
 High Conductance



Marking Code: A7  
 SOT-23 Plastic Package

### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

| Parameter  | Symbol    | Value  | Unit             |                  |
|--|-----------|--|------------------|------------------|
| Repetitive Peak Reverse Voltage                  | $V_{RRM}$ | 85   | V                |                  |
| Continuous Reverse Voltage                       | $V_R$     | 75   | V                |                  |
| Continuous Forward Current (Double Diode Loaded) | $I_F$     | 125  | mA               |                  |
| Continuous Forward Current (Single Diode Loaded) | $I_F$     | 215  | mA               |                  |
| Repetitive Peak Forward Current                  | $I_{FRM}$ | 450  | mA               |                  |
| Non-repetitive Peak Forward Surge Current        | $I_{FSM}$ | at $t = 1\text{ s}$<br>at $t = 1\text{ ms}$<br>at $t = 1\text{ }\mu\text{s}$ | 0.5<br>1<br>4.5  | A                |
| Power Dissipation                                |           | $P_{tot}$  | 350              | mW               |
| Junction Temperature                             |           | $T_j$  | 150              | $^\circ\text{C}$ |
| Storage Temperature Range                        | $T_{stg}$ | - 65 to + 150  | $^\circ\text{C}$ |                  |

### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

| Parameter  | Symbol | Max.                        | Unit                |   |    |
|--|--------|-----------------------------|---------------------|---|----|
| Forward Voltage at $I_F = 1\text{ mA}$<br>at $I_F = 10\text{ mA}$<br>at $I_F = 50\text{ mA}$<br>at $I_F = 150\text{ mA}$   | $V_F$  | 0.715<br>0.855<br>1<br>1.25 | V                   |   |    |
| Reverse Current at $V_R = 25\text{ V}$<br>at $V_R = 75\text{ V}$<br>at $V_R = 25\text{ V}, T_j = 150\text{ }^\circ\text{C}$<br>at $V_R = 75\text{ V}, T_j = 150\text{ }^\circ\text{C}$ |        | $I_R$                       | 30<br>1<br>30<br>50 | nA<br>$\mu\text{A}$<br>$\mu\text{A}$<br>$\mu\text{A}$ |    |
| Diode Capacitance<br>at $V_R = 0$ , $f = 1\text{ MHz}$   |        |                             | $C_d$               | 1.5   | pF |
| Reverse Recovery Time<br>at $I_F = I_R = 10\text{ mA}$ , $I_R = 1\text{ mA}$ , $R_L = 100\text{ }\Omega$   |        |                             | $t_{rr}$            | 4   | ns |

## Typical Characteristics

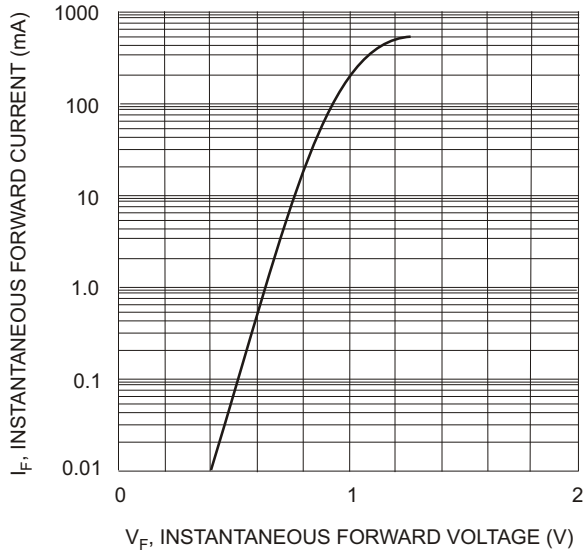


Fig. 1 Forward Characteristics

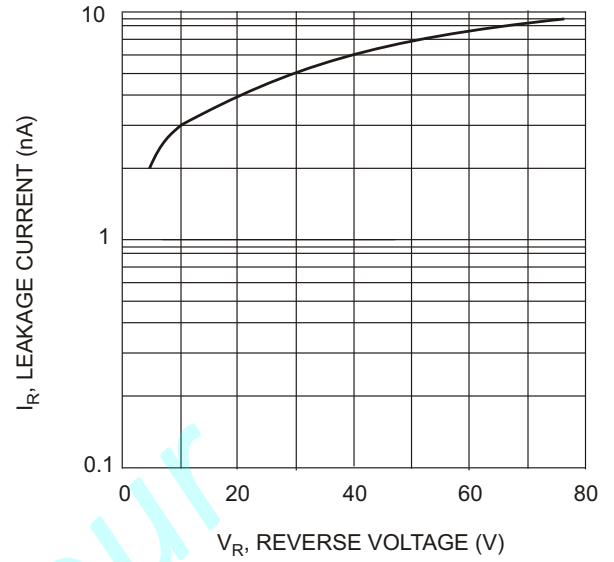


Fig. 2 Typical Leakage Current vs Reverse Voltage

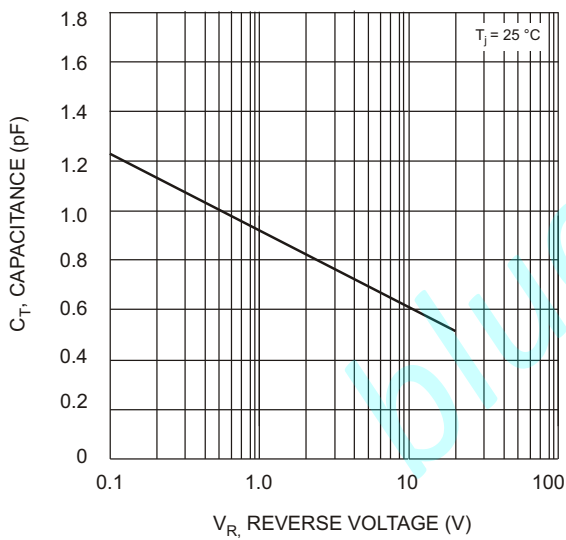


Fig. 3 Typical Total Capacitance vs Reverse Voltage

## PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23

