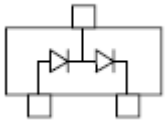
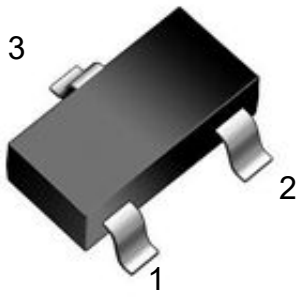
# Dual Switching Diodes

## BAV99 SOT-23






SOT-23
BAV99 polarity

## FEATURES

- Epoxy meets UL-94 V-0 flammability rating
- Moisure Sensitivity Level 1
- Fast switching speed
- High Conductance
- Surface mount package ideally Suited for Automatic Insertion

## MECHANICAL DATA

- **Package**: SOT-23
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** A7

## MAXIMUM RATINGS (Ta=25℃ Unless otherwise specified)

| Item | Symbol | Unit | Value |
|---|---|---|---|
| Peak Reverse Voltage | $V_{RRM}$ | V | 100 |
| Reverse Voltage | $V_R$ | V | 75 |
| Forward Continuous Current@f>=50Hz, Per Leg | $I_F$ | mA | 200 |
| Non-Repetitive Peak Forward Surge Current @8.3ms, Half sine-wave, Per Leg | $I_{FSM}$ | A | 2.0 |
| Power Dissipation | $P_D$ | mW | 350 |
| Maximum Thermal Resisance | $R_{thJA}$ | ℃/W | 357 |
| Operating Junction Temperature | $T_J$ | ℃ | 150 |
| Storage Temperature | $T_{STG}$ | ℃ | -55 to +150 |

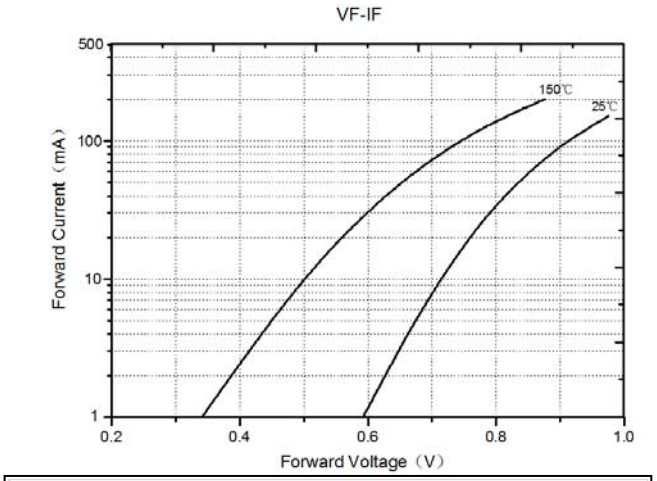
## ELECTRICAL CHARACTERISTICS (Ta=25℃ Unless otherwise specified)

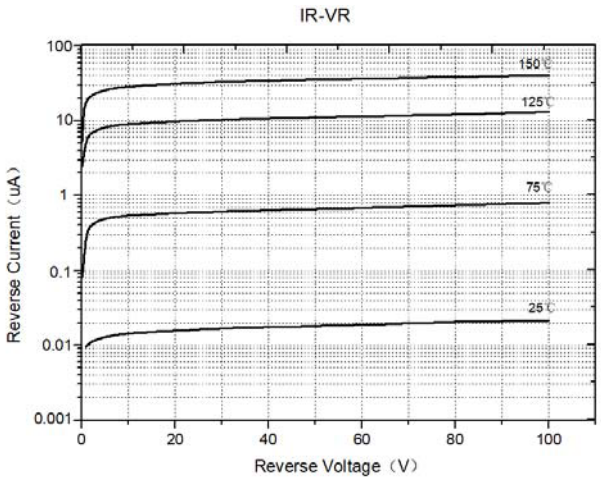
| Item | Symbol | Unit | Conditions | Value |
|---|---|---|---|---|
| Reverse Voltage | $V_R$ | V | $I_R$=100uA | 75 |
| Forward Voltage | $V_F$ | V | $I_F$=1mA | 0.715 |
| | | | $I_F$=10mA | 0.855 |
| | | | $I_F$=50mA | 1.00 |
| | | | $I_F$=150mA | 1.25 |
| Maximum DC Reverse Current | $I_R$ | uA | $V_R$=75V | 2.5 |
| Typical Junction Capacitance | $C_J$ | pF | f=1.0MHz, $V_R$=0V | 4 |
| Reverse Recovery Time | $T_{rr}$ | ns | $I_F$=10mA, $V_R$=6V, $R_L$=100Ω, $I_{rr}$=1mA | 4 |

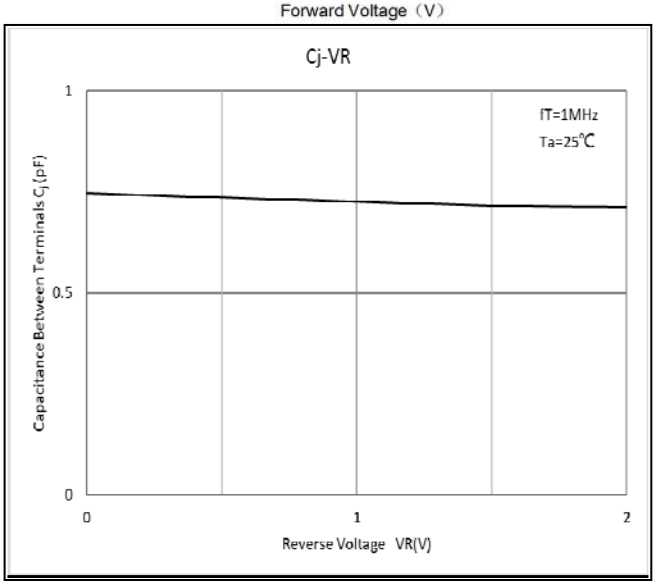
## PACKAGING INFORMATION

| PREFERED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---|---|---|---|---|---|---|
| BAV99 | F2 | Approximate 0.008 | 3000 | 30000 | 120000 | 7" reel |

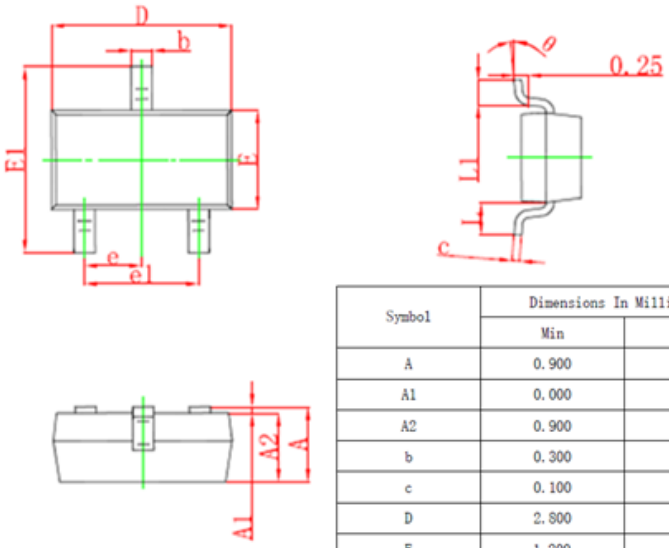
## CHARACTERISTICS (TYPICAL)



## ■ SOT-23 Package Outline Dimensions




| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|---|---|---|---|---|
| | Min | Max | Min | Max |
| A | 0.900 | 1.150 | 0.035 | 0.045 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 0.900 | 1.050 | 0.035 | 0.041 |
| b | 0.300 | 0.500 | 0.012 | 0.020 |
| c | 0.100 | 0.200 | 0.004 | 0.008 |
| D | 2.800 | 3.000 | 0.110 | 0.118 |
| E | 1.200 | 1.400 | 0.047 | 0.055 |
| E1 | 2.250 | 2.550 | 0.089 | 0.100 |
| e | 0.950TYP | | 0.037TYP | |
| e1 | 1.800 | 2.000 | 0.071 | 0.079 |
| L | 0.550REF | | 0.022REF | |
| L1 | 0.300 | 0.500 | 0.012 | 0.020 |
| θ | 0° | 8° | 0° | 8° |