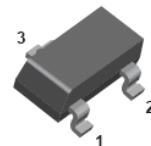


FEATURES

- Fast switching speed Max:4ns.
- High conductance.
- Connected in series.
- Surface mount package ideally suited for automatic insertion.
- MSL1.


SOT-23

APPLICATIONS

- High-speed switching in thick and thin-film circuits.



ORDERING INFORMATION

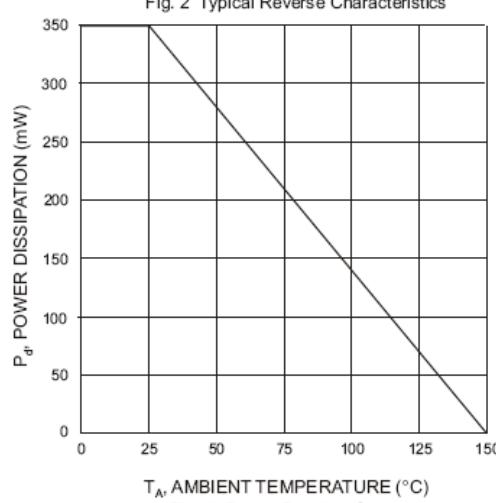
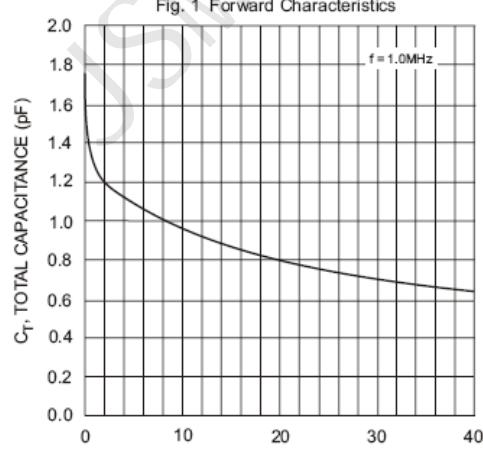
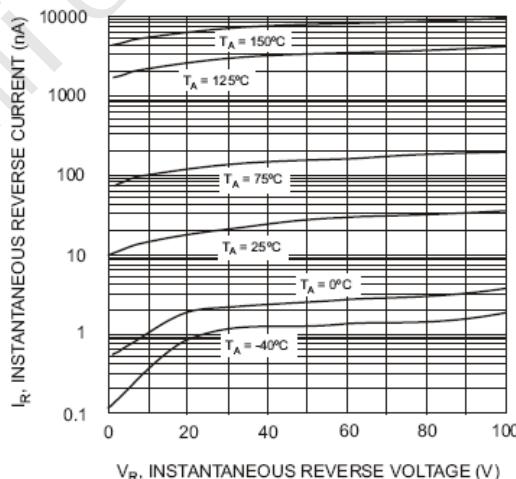
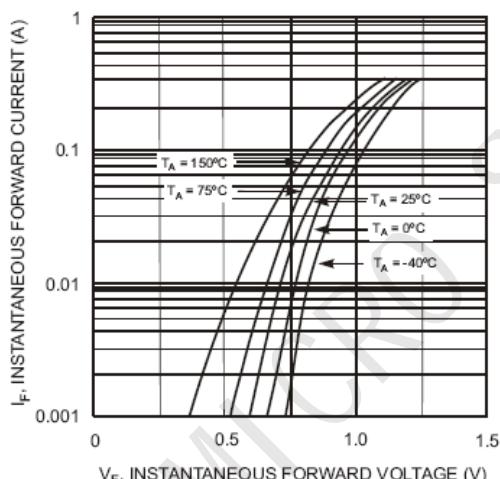
| Type No. | Marking | Package Code |
|----------|---------|--------------|
| BAV99 | A7 | SOT-23 |

MAXIMUM RATING @ Ta=25°C unless otherwise specified

| Parameter | Symbol | Value | Unit |
|---|-----------------------------------|-------------------|------|
| Reverse voltage | V _R | 75 | V |
| Forward current | I _F | 215 | mA |
| Peak forward surge current | I _{FM} | 500 | mA |
| Peak repetitive reverse voltage | V _{RRM} | 75 | V |
| Repetitive peak forward current | I _{FRM} | 450 | mA |
| Peak forward surge current @t=1.0μs @t=1.0ms @t=1.0s | I _{FSM} | 2.0 1.0 0.5 | A |
| Power dissipation | P _d | 350 | mW |
| Thermal resistance junction to ambient air | R _{θJA} | 556 | °C/W |
| Operating and storage temperature range | T _j , T _{STG} | -65 to +150 | °C |

ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

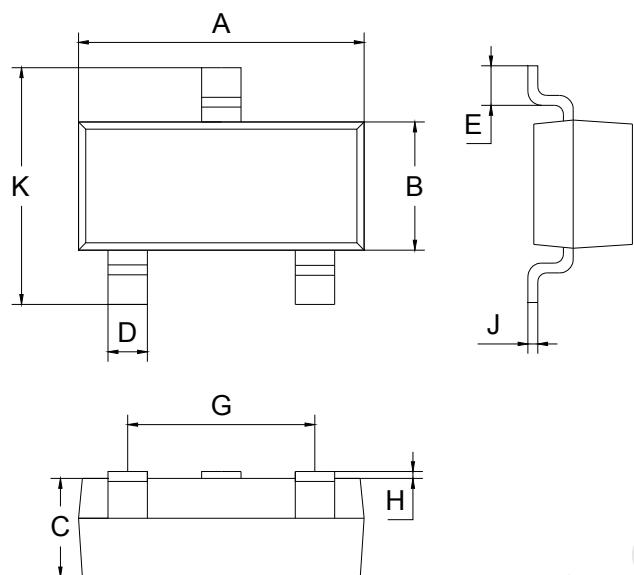
| Parameter | Typical | Test conditions | MIN | MAX | UNIT |
|---------------------------------|-------------------|--|-----|----------------------------|---|
| Reverse breakdown voltage | $V_{(\text{BR})}$ | $I_R=2.5\mu\text{A}$ | 75 | | V |
| Reverse voltage leakage current | I_R | $V_R=20\text{V}$ $V_R=75\text{V}$ $V_R=25\text{V} T_j=150^\circ\text{C}$ $V_R=75\text{V} T_j=150^\circ\text{C}$ | | 25 2.5 30 50 | nA μA μA μA |
| Forward voltage | V_F | $I_F=1\text{mA}$ $I_F=10\text{mA}$ $I_F=50\text{mA}$ $I_F=150\text{mA}$ | | 715 855 1000 1250 | mV |
| Diode capacitance | C_D | $V_R=0\text{V} f=1\text{MHz}$ | | 2.0 | pF |
| Reverse recovery time | t_{rr} | $I_F=I_R=10\text{mA}$, $I_{rr}=0.1 \times I_R, R_L=100\Omega$ | | 4.0 | nS |

TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified


PACKAGE OUTLINE

Plastic surface mounted package

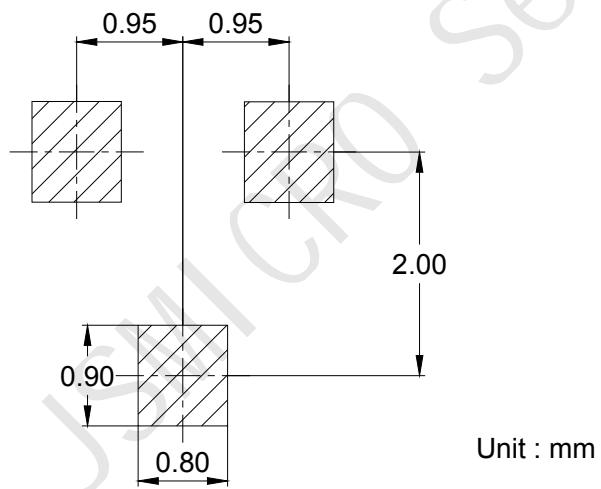
SOT-23



| SOT-23 | | |
|--------|------|------|
| Dim | Min | Max |
| A | 2.70 | 3.10 |
| B | 1.10 | 1.50 |
| C | 0.9 | 1.1 |
| D | 0.3 | 0.5 |
| E | 0.35 | 0.48 |
| G | 1.80 | 2.00 |
| H | 0.02 | 0.1 |
| J | 0.05 | 0.15 |
| K | 2.20 | 2.60 |

All Dimensions in mm

SOLDERING FOOTPRINT



PACKAGE INFORMATION

| Device | Package | Shipping |
|--------|---------|----------------|
| BAV99 | SOT-23 | 3000/Tape&Reel |