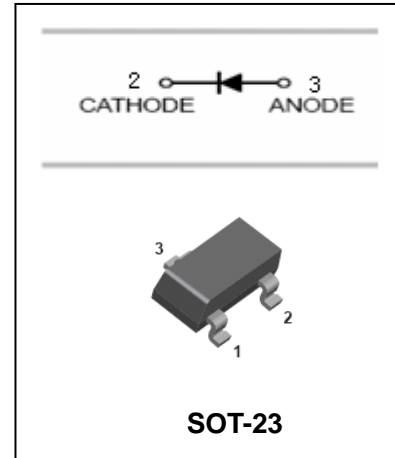


Surface mount switching diode

**BAL99**

**FEATURES**

- Fast switching.



**APPLICATIONS**

- High speed switching application.

**ORDERING INFORMATION**

| Type No. | Marking | Package Code |
|----------|---------|--------------|
| BAL99    | JF      | SOT-23       |

**MAXIMUM RATING @ Ta=25°C unless otherwise specified**

| Characteristic                          | Symbol          | Limits      | Unit |
|---|-----------------|-------------|------|
| Continuous Reverse Voltage              | $V_R$           | 70          | V    |
| Peak Forward Current                    | $I_F$           | 100         | mA   |
| Power Dissipation                       | $P_d$           | 300         | mW   |
| Thermal Resistance, Junction to Ambient | $R_{\theta JA}$ | 417         | °C/W |
| Operating Junction Temperature Range    | $T_j$           | 125         | °C   |
| Storage Temperature Range               | $T_{STG}$       | -55 to +125 | °C   |

**ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

| Characteristic            | Symbol      | Min | MAX                        | UNIT    | Test Condition                                       |
|---------------------------|-------------|-----|----------------------------|---------|--|
| Reverse Breakdown Voltage | $V_{(BR)R}$ | 70  | -                          | V       | $I_R=100\mu A$                                       |
| Forward Voltage           | $V_F$       | -   | 715<br>855<br>1000<br>1250 | mV      | $I_F=1mA$<br>$I_F=10mA$<br>$I_F=50mA$<br>$I_F=150mA$ |
| Reverse Leakage Current   | $I_R$       | -   | 2.5                        | $\mu A$ | $V_R=70V$  |
| Diodes Capacitance        | $C_d$       | -   | 1.5                        | pF      | $V_R=0V, f=1.0MHz$                                   |
| Reverse Recovery Time     | $t_{rr}$    | -   | 6.0                        | ns      | $I_F=I_R=10mA, I_{trr}=0.1*I_R$<br>$R_L=100\Omega$   |

Surface mount switching diode

**BAL99**

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

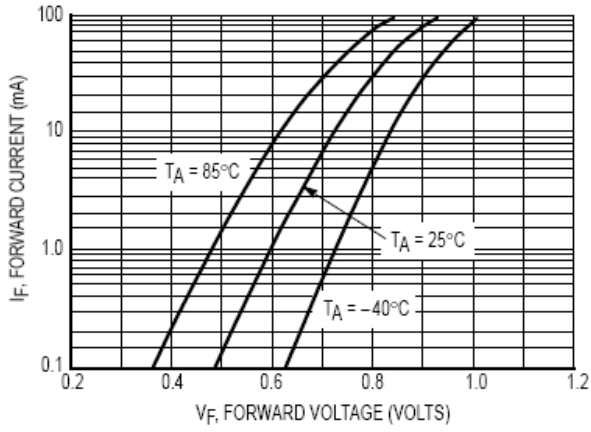


Figure 1. Forward Voltage

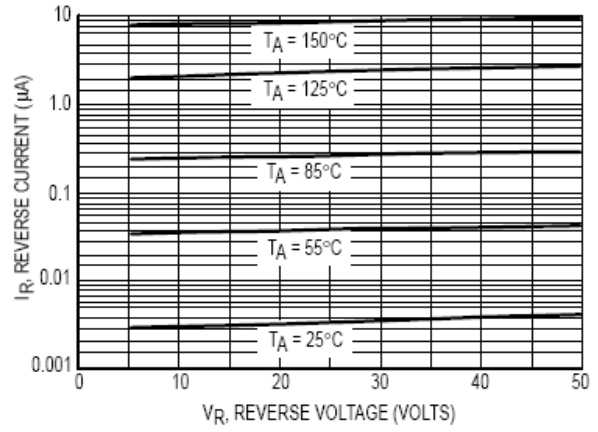


Figure 2. Leakage Current

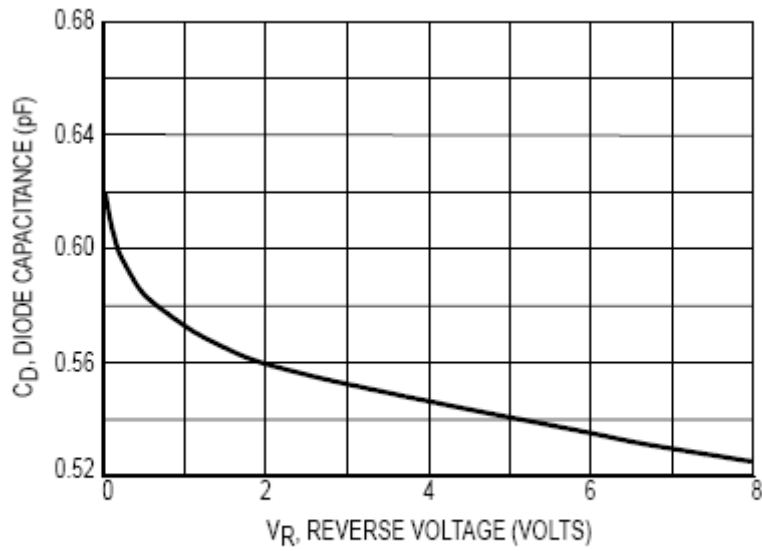


Figure 3. Capacitance

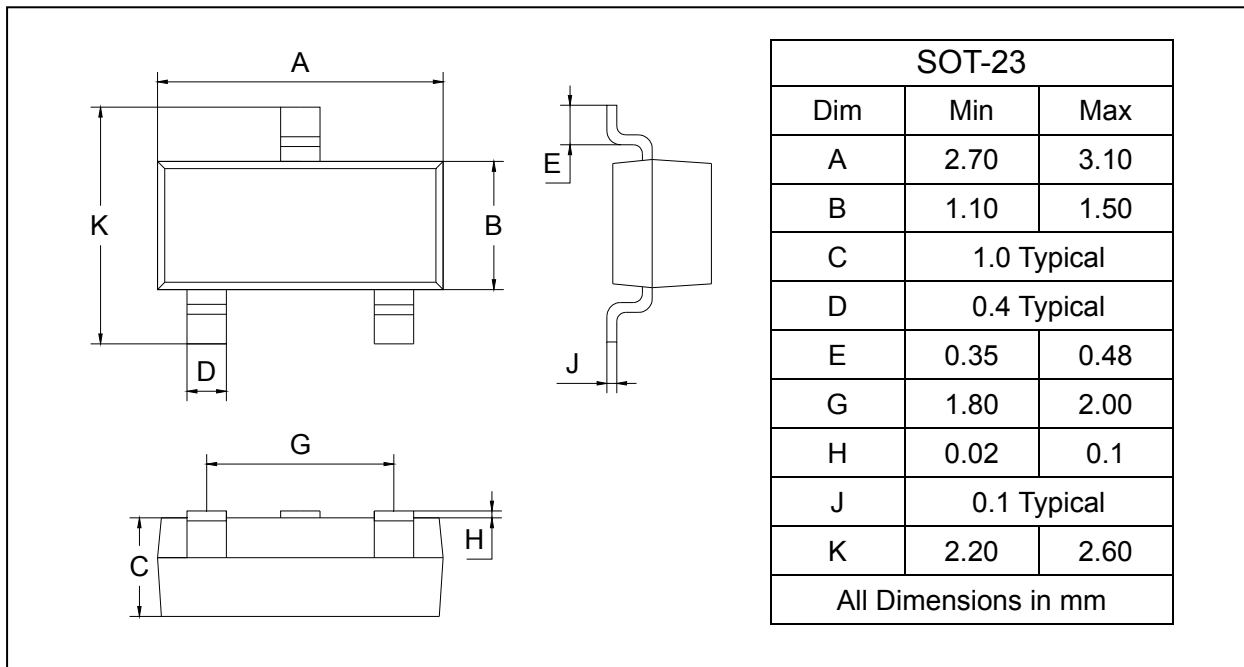
Surface mount switching diode

**BAL99**

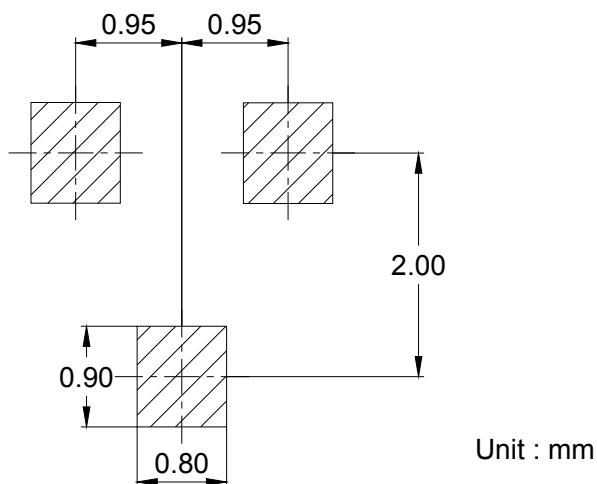
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

| Device | Package | Shipping       |
|--------|---------|----------------|
| BAL99  | SOT-23  | 3000/Tape&Reel |