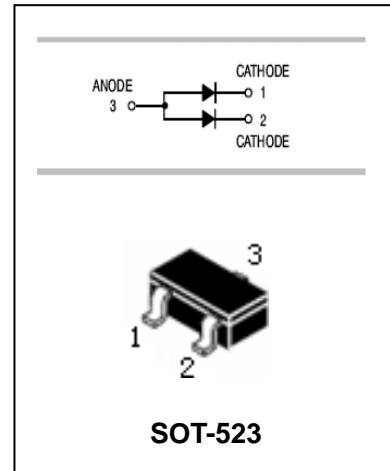


**SURFACE MOUNT FAST SWITCHING DIODE**

**BAW56T**

**FEATURES**

- Ultra-Small Surface Mount Package.
- Fast switching speed.
- For General Purpose Switching Applications.
- High Conductance.
- Also Available in Lead Free Version.



**ORDERING INFORMATION**

| Type No. | Marking | Package Code |
|----------|---------|--------------|
| BAW56T   | JD      | SOT-523      |

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

| Symbol                            | Parameter                                 | Value                           | Units         |    |
|-----------------------------------|---|---------------------------------|---------------|----|
| V <sub>RRM</sub>                  | Peak Repetitive Reverse Voltage           | 85                              | V             |    |
| V <sub>RWM</sub>                  | Working Peak Reverse Voltage              | 85                              | V             |    |
| V <sub>R</sub>                    | DC Blocking Voltage                       | 85                              | V             |    |
| V <sub>R(RMS)</sub>               | RMS Reverse Voltage                       | 60                              | V             |    |
| I <sub>FM</sub>                   | Forward Continuous Current                | single diode<br>Both diodes     | 155<br>75     | mA |
| I <sub>FRM</sub>                  | Repetitive Peak Forward Current           | 500                             | mA            |    |
| I <sub>FSM</sub>                  | Non-repetitive Peak Forward Surge Current | @t=1.0µs<br>@t=1.0ms<br>@t=1.0s | 4<br>1<br>0.5 | A  |
| P <sub>d</sub>                    | Power Dissipation                         | 150                             | mW            |    |
| R <sub>θJA</sub>                  | Thermal Resistance Junction to Ambient    | 833                             | °C/W          |    |
| T <sub>j</sub> , T <sub>stg</sub> | Junction and Storage Temperature          | -65 to +150                     | °C            |    |

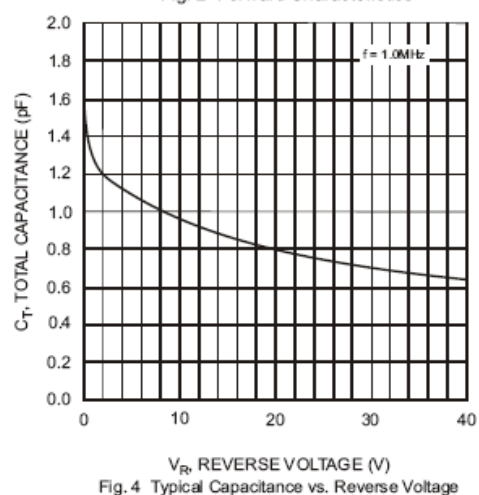
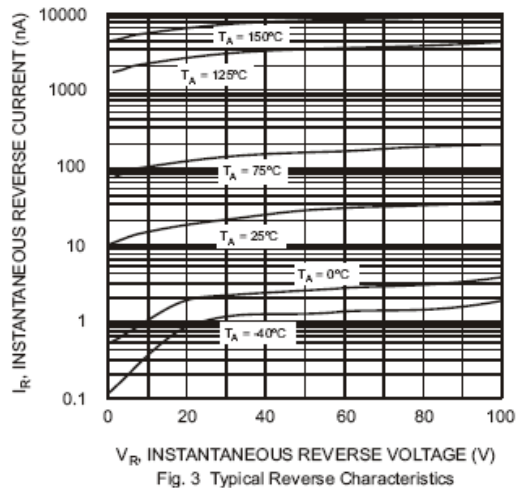
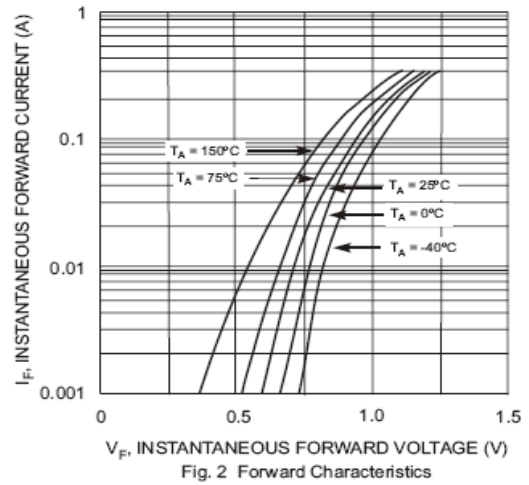
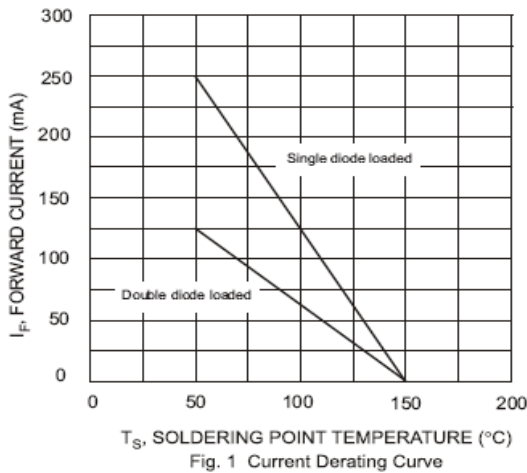
**SURFACE MOUNT FAST SWITCHING DIODE**

**BAW56T**

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

| Parameter                 | Symbol      | Test conditions                                     | MIN | MAX   | UNIT    |
|---------------------------|-------------|---|-----|-------|---------|
| Reverse Breakdown Voltage | $V_{(BR)R}$ | $I_R=100\mu A$                                      | 85  |       | V       |
| Leakage current           | $I_R$       | $V_R=25V$   |     | 30    | nA      |
|                           |             | $V_R=75V$   |     | 2     | $\mu A$ |
|                           |             | $V_R=25V, T_j=150^\circ C$                          |     | 60    | $\mu A$ |
|                           |             | $V_R=75V, T_j=150^\circ C$                          |     | 100   | $\mu A$ |
| Forward voltage           | $V_F$       | $I_F=1mA$   |     | 0.715 | V       |
|                           |             | $I_F=10mA$  |     | 0.855 |         |
|                           |             | $I_F=50mA$  |     | 1     |         |
|                           |             | $I_F=150mA$   |     | 1.25  |         |
| Typical Total Capacitance | $C_T$       | $V_R=0V, f=1MHz$                                    |     | 1.5   | pF      |
| Reverse recovery Time     | $t_{rr}$    | $I_F=I_R=10mA, I_{rr}=0.1 \cdot I_R, R_L=100\Omega$ |     | 4     | ns      |

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



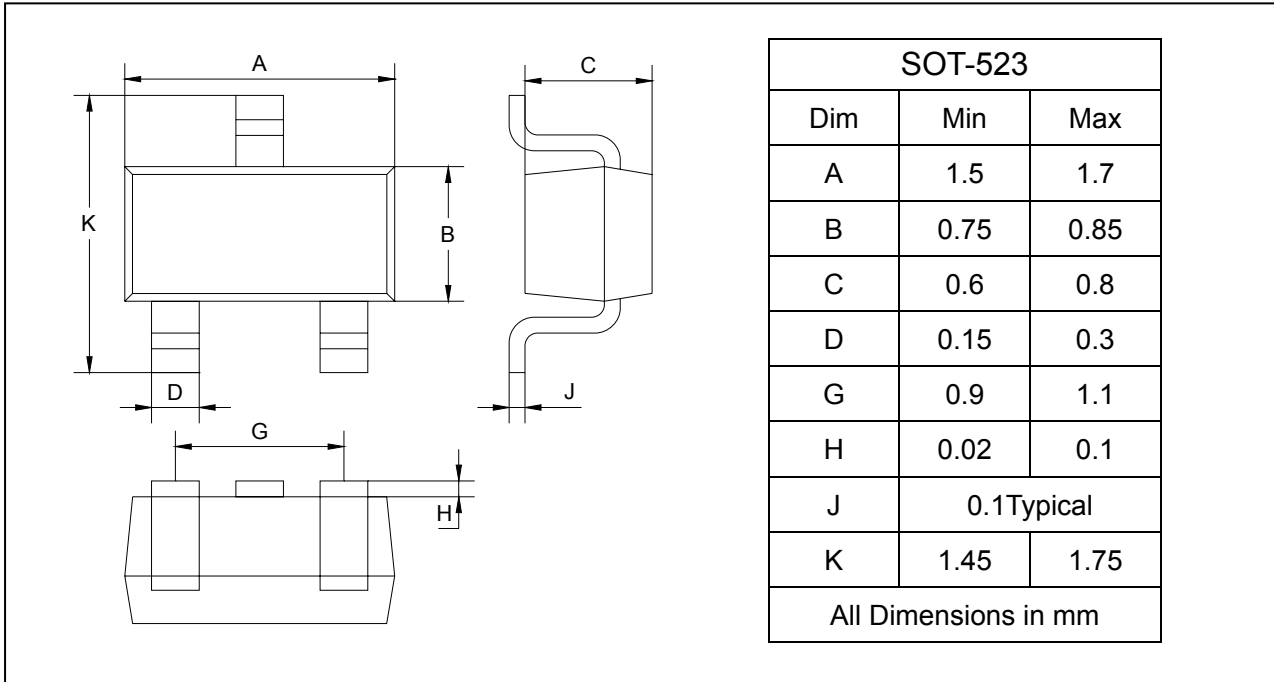
**SURFACE MOUNT FAST SWITCHING DIODE**

**BAW56T**

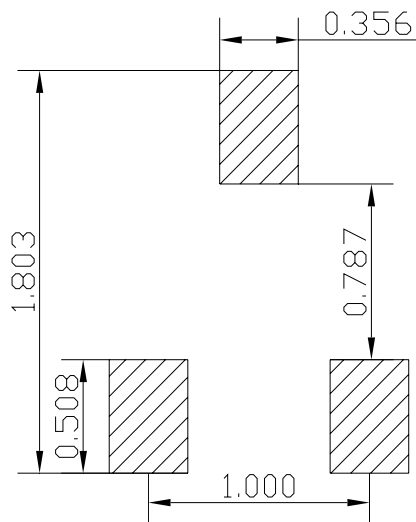
**PACKAGE OUTLINE**

Plastic surface mounted package

SOT-523



**SOLDERING FOOTPRINT**



Unit : mm

**PACKAGE INFORMATION**

| Device | Package | Shipping       |
|--------|---------|----------------|
| BAW56T | SOT-523 | 3000/Tape&Reel |