



# Shenzhen Taimao Technology Co., Ltd.

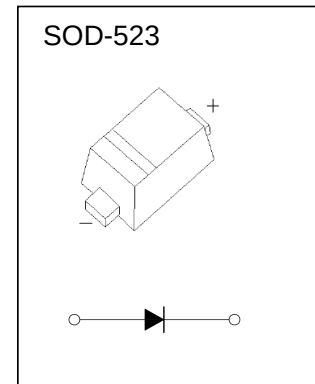
## SOD-523 Plastic-Encapsulate Diodes

### BAP51-02 GENERAL PURPOSE PIN DIODES

#### FEATURES

- Low diode capacitance
- Low diode forward resistance

#### MARKING: A5



#### Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25°C

| Parameter                                           | Symbol          | Limit    | Unit |
|-----------------------------------------------------|-----------------|----------|------|
| Continuous Reverse Voltage                          | $V_R$           | 60       | V    |
| Continuous Forward Current                          | $I_F$           | 50       | mA   |
| Power Dissipation (Ta=90°C)                         | $P_d$           | 715      | mW   |
| Power Dissipation                                   | $P_d$           | 150      | mW   |
| Thermal Resistance from Junction to Soldering Point | $R_{\theta JS}$ | 85       | °C/W |
| Junction Temperature                                | $T_J$           | -55~+150 | °C   |
| Storage Temperature                                 | $T_{STG}$       | -55~+150 | °C   |

#### Electrical Ratings @Ta=25°C

| Parameter                  | Symbol   | Min | Typ  | Max  | Unit     | Conditions                   |
|----------------------------|----------|-----|------|------|----------|------------------------------|
| Continuous reverse voltage | $V_R$    | 50  |      |      | V        | $I_R=10\mu A$                |
| Forward voltage            | $V_F$    |     |      | 1.1  | V        | $I_F=50mA$                   |
| Reverse current            | $I_R$    |     |      | 100  | nA       | $V_R=50V$                    |
| Diode capacitance          | $C_{d1}$ |     | 0.4* |      | pF       | $V_R=0V, f=1MHz$             |
|                            | $C_{d2}$ |     |      | 0.55 | pF       | $V_R=1V, f=1MHz$             |
|                            | $C_{d3}$ |     |      | 0.35 | pF       | $V_R=5V, f=1MHz$             |
| Diode forward resistance   | $r_D$    |     |      | 9    | $\Omega$ | $I_F=0.5mA, f=100MHz; note1$ |
|                            | $r_D$    |     |      | 6.5  | $\Omega$ | $I_F=1mA, f=100MHz; note1$   |
|                            | $r_D$    |     |      | 2.5  | $\Omega$ | $I_F=10mA, f=100MHz; note1$  |

Note 1. Guaranteed on AQL basis: inspection level S4,AQL 1.0.