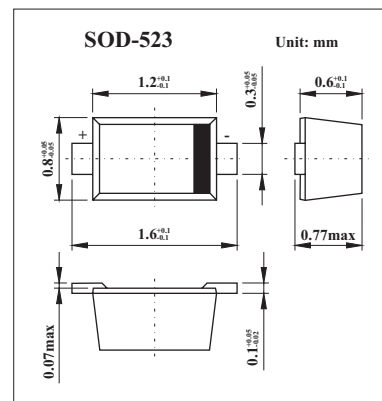


## General purpose PIN diode

## BAP51-02

## ■ Features

- Low diode capacitance
- Low diode forward resistance.

■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$ 

| Parameter                                           | Symbol        | Min | Max  | Unit             |
|-----------------------------------------------------|---------------|-----|------|------------------|
| continuous reverse voltage                          | $V_R$         |     | 50   | V                |
| continuous forward current                          | $I_F$         |     | 50   | mA               |
| total power dissipation $T_s = 90^\circ\text{C}$    | $P_{tot}$     |     | 715  | mW               |
| storage temperature                                 | $T_{stg}$     | -65 | +150 | $^\circ\text{C}$ |
| junction temperature                                | $T_J$         | -65 | +150 | $^\circ\text{C}$ |
| thermal resistance from junction to soldering point | $R_{th\ j-s}$ |     | 85   | K/W              |

■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

| Parameter                | Symbol | Conditions                                               | Min | Typ  | Max  | Unit     |
|--------------------------|--------|----------------------------------------------------------|-----|------|------|----------|
| forward voltage          | $V_F$  | $I_F = 50\text{ mA}$                                     |     | 0.95 | 1.1  | V        |
| reverse voltage          | $V_R$  | $I_R = 10\ \mu\text{A}$                                  | 50  |      |      | V        |
| reverse current          | $I_R$  | $V_R = 50\text{ V}$                                      |     |      | 100  | nA       |
| diode capacitance        | $C_d$  | $V_R = 0; f = 1\text{ MHz}$                              |     | 0.4  |      | pF       |
|                          |        | $V_R = 1\text{ V}; f = 1\text{ MHz}$                     |     | 0.3  | 0.55 |          |
|                          |        | $V_R = 5\text{ V}; f = 1\text{ MHz}$                     |     | 0.2  | 0.35 |          |
| diode forward resistance | $r_D$  | $I_F = 0.5\text{ mA}; f = 100\text{ MHz}; \text{note 1}$ |     | 5.5  | 9    | $\Omega$ |
|                          |        | $I_F = 1\text{ mA}; f = 100\text{ MHz}; \text{note 1}$   |     | 3.6  | 6.5  |          |
|                          |        | $I_F = 10\text{ mA}; f = 100\text{ MHz}; \text{note 1}$  |     | 1.5  | 2.5  |          |

Note

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

## ■ Marking

|         |    |
|---------|----|
| Marking | A5 |
|---------|----|