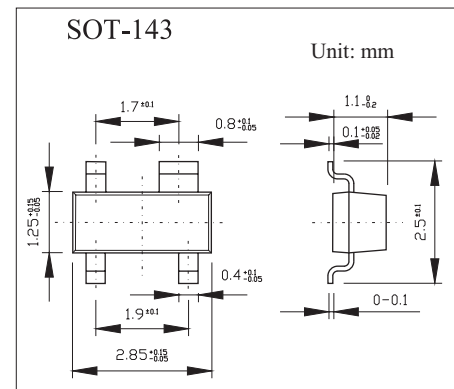


## General Purpose Double Diode

## BAV23

## ■ Features

- Small plastic SMD package
- Switching speed: max. 50 ns
- General application
- Continuous reverse voltage: max. 200 V
- Repetitive peak reverse voltage: max. 250 V
- Repetitive peak forward current: max. 625 mA.



## ■ Absolute Maximum Ratings Ta = 25°C

| Parameter                                     | Symbol   | Test Condition                        | Min | Max  | Unit |
|---|----------|---------------------------------------|-----|------|------|
| repetitive peak reverse voltage               | VRRM     |                                       |     | 250  | V    |
| repetitive peak reverse voltage               | VRRM     | series connection                     |     | 500  | V    |
| continuous reverse voltage                    | VR       |                                       |     | 200  | V    |
| continuous reverse voltage                    | VR       | series connection                     |     | 400  | V    |
| continuous forward current                    | IF       | single diode loaded                   |     | 225  | mA   |
|   |          | double diode loaded                   |     | 125  | mA   |
| repetitive peak forward current               | IFRM     | single diode loaded                   |     | 625  | mA   |
| non-repetitive peak forward current           | IFSM     | square wave; Tj = 25°C prior to surge |     |      | A    |
|   |          | t = 1 μs                              |     | 9    |      |
|   |          | t = 100 μs                            |     | 3    |      |
|   |          | t = 10 ms                             |     | 1.7  |      |
| total power dissipation                       | Ptot     | Tamb = 25°C                           |     | 250  | mW   |
| storage temperature                           | Tstg     |                                       | -65 | +150 | °C   |
| junction temperature                          | Tj       |                                       |     | 150  | °C   |
| thermal resistance from junction to tie-point | Rth j-tp |                                       |     | 360  | K/W  |
| thermal resistance from junction to ambient   | Rth j-a  |                                       |     | 500  | K/W  |

**BAV23**■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

| Parameter             | Symbol   | Test Condition  | Min | Max  | Unit           |
|-----------------------|----------|---|-----|------|----------------|
| forward voltage       | $V_F$    | $I_F = 100\text{ mA}$   |     | 1.0  | V              |
|                       |          | $I_F = 200\text{ mA}$   |     | 1.25 | V              |
| reverse current       | $I_R$    | series connection   |     |      |                |
|                       |          | $I_F = 100\text{ mA}$   |     | 2.0  | V              |
|                       |          | $I_F = 200\text{ mA}$   |     | 2.5  | V              |
| forward voltage       | $V_F$    | $V_R = 200\text{ V}$  |     | 100  | nA             |
|                       |          | $V_R = 200\text{ V}; T_j = 150^\circ\text{C}$   |     | 100  | $\mu\text{ A}$ |
| reverse current       | $I_R$    | series connection   |     |      |                |
|                       |          | $V_R = 60\text{ V}$   |     | 100  | nA             |
|                       |          | $V_R = 60\text{ V}; T_j = 150^\circ\text{C}$  |     | 100  | $\mu\text{ A}$ |
| diode capacitance     | $C_d$    | $f = 1\text{ MHz}; V_R = 0$   |     | 5    | pF             |
|                       |          | series connection; $f = 1\text{ MHz}; V_R = 0$  |     | 2.5  | pF             |
| reverse recovery time | $t_{rr}$ | when switched from $I_F = 30\text{ mA}$ to $I_R = 30\text{ mA}$ ;<br>$R_L = 100\ \Omega$ ; measured at $I_R = 30\text{ mA}$ |     | 50   | ns             |

## ■ Marking

|         |     |
|---------|-----|
| Marking | L30 |
|---------|-----|