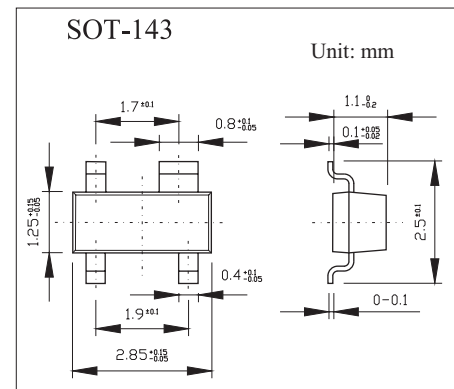


## General Purpose Double Diode

## 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  $T_a = 25^\circ\text{C}$ 

| Parameter                                     | Symbol         | Test Condition                                       | Min | Max  | Unit             |
|---|----------------|--|-----|------|------------------|
| repetitive peak reverse voltage               | $V_{RRM}$      |  |     | 250  | V                |
| repetitive peak reverse voltage               | $V_{RRM}$      | series connection                                    |     | 500  | V                |
| continuous reverse voltage                    | $V_R$          |  |     | 200  | V                |
| continuous reverse voltage                    | $V_R$          | series connection                                    |     | 400  | V                |
| continuous forward current                    | $I_F$          | single diode loaded                                  |     | 225  | mA               |
|   |                | double diode loaded                                  |     | 125  | mA               |
| repetitive peak forward current               | $I_{FRM}$      | single diode loaded                                  |     | 625  | mA               |
| non-repetitive peak forward current           | $I_{FSM}$      | square wave; $T_j = 25^\circ\text{C}$ prior to surge |     |      | A                |
|   |                | $t = 1 \mu\text{s}$                                  |     | 9    |                  |
|   |                | $t = 100 \mu\text{s}$                                |     | 3    |                  |
|   |                | $t = 10 \text{ms}$                                   |     | 1.7  |                  |
| total power dissipation                       | $P_{tot}$      | $T_{amb} = 25^\circ\text{C}$                         |     | 250  | mW               |
| storage temperature                           | $T_{stg}$      |  | -65 | +150 | $^\circ\text{C}$ |
| junction temperature                          | $T_j$          |  |     | 150  | $^\circ\text{C}$ |
| thermal resistance from junction to tie-point | $R_{th\ j-tp}$ |  |     | 360  | K/W              |
| thermal resistance from junction to ambient   | $R_{th\ j-a}$  |  |     | 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 |
|---------|-----|