

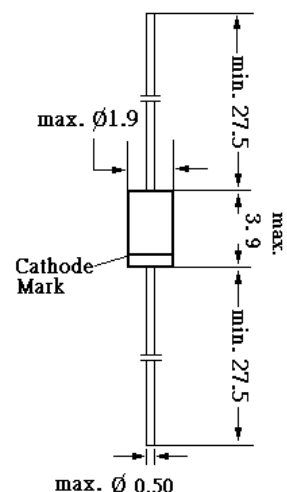
# BA243A, BA244A

## SILICON EPITAXIAL PLANAR DIODE SWITCHES

for electronic band-switching in radio and TV tuners in the frequency range of 50 to 1000 MHz. The dynamic forward resistance is constant and very small over a wide range of frequency and forward current. The reverse capacitance is also small and largely independent of the reverse voltage.

These diodes are delivered taped.

Details see "Taping".



Glass case JEDEC DO-35

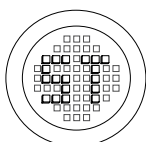
Dimensions in mm

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

|   | Symbol | Value       | Unit             |
|---|--------|-------------|------------------|
| Reverse Voltage                                 | $V_R$  | 35          | V                |
| Forward Current at $T_{amb} = 25^\circ\text{C}$ | $I_F$  | 100         | mA               |
| Junction Temperature                            | $T_j$  | 150         | $^\circ\text{C}$ |
| Storage Temperature Range                       | $T_S$  | -55 to +150 | $^\circ\text{C}$ |

Characteristics at  $T_{amb} = 25^\circ\text{C}$

|   | Symbol  | Min. | Typ. | Max. | Unit          |
|---|---|------|------|------|---------------|
| Forward Voltage<br>at $I_F = 100\text{mA}$  | $V_F$   | -    | -    | 1    | V             |
| Leakage Current<br>at $V_R = 20\text{V}$  | $I_R$   | -    | -    | 50   | nA            |
| at $V_R = 15\text{V}, T_{amb} = 60^\circ\text{C}$   | $I_R$   | -    | -    | 1    | $\mu\text{A}$ |
| Dynamic Forward Resistance<br>at $f = 50$ to $1000$ MHz, $I_F = 10\text{mA}$  |   |      |      |      |               |
| BA243A  | $r_f$   | -    | 0.7  | 1    | $\Omega$      |
| BA244A  | $r_f$   | -    | 0.4  | 0.5  | $\Omega$      |
| Relative Variation of Dynamic Forward Resistance<br>with the Variation of Forward Current in the Range<br>of $I_F = 2$ to $40\text{mA}$ | $\frac{\Delta r_f \cdot 100}{r_f \cdot \Delta I_F}$         | -    | 5    | -    | %/mA          |
| Capacitance<br>at $V_R = 3\text{V}, f = 1\text{MHz}$  | $C_{tot}$   | -    | -    | 1.8  | pF            |
| Relative Variation of Capacitance with the Variation<br>of Reverse Voltage in the Range of $V_R = 7$ to $20$ V,<br>$f = 100\text{MHz}$  | $\frac{\Delta C_{tot} \cdot 100}{C_{tot} \cdot \Delta V_R}$ | -    | 1    | -    | %/V           |
| Series Inductance across Case   | $L_S$   | -    | 2.5  | -    | nH            |

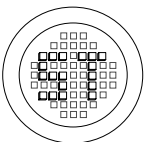
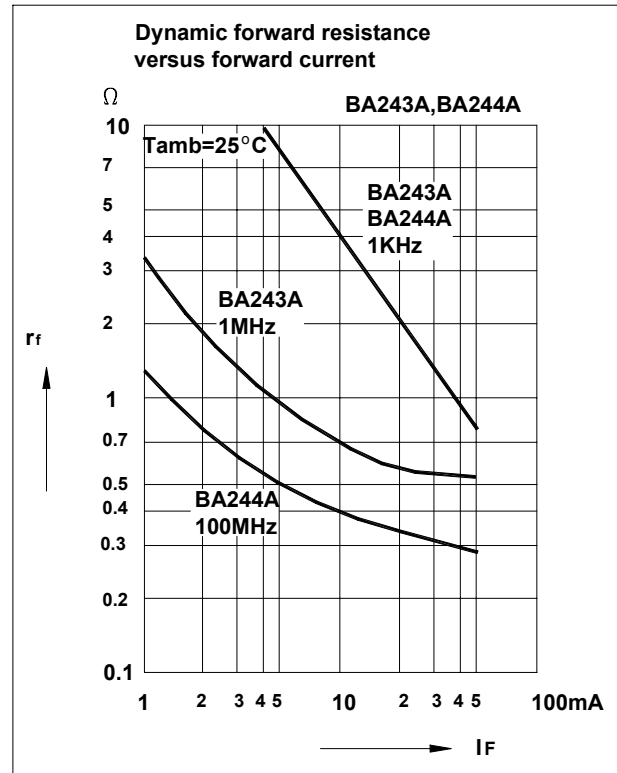
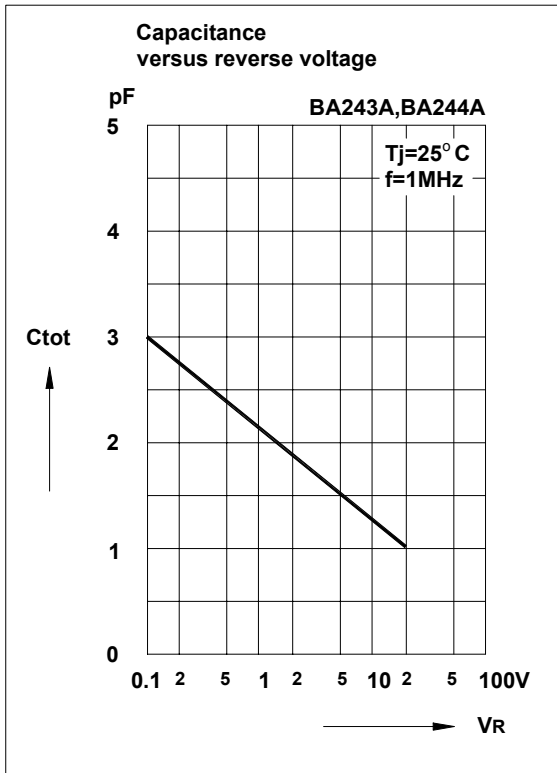


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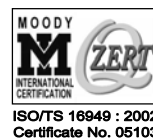
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## SEMTECH ELECTRONICS LTD.

(Subsidiary of Semtech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



Dated : 31/12/2002