

# Silicon Varicap Diode

## **BB801**

SAT Tuning Diode

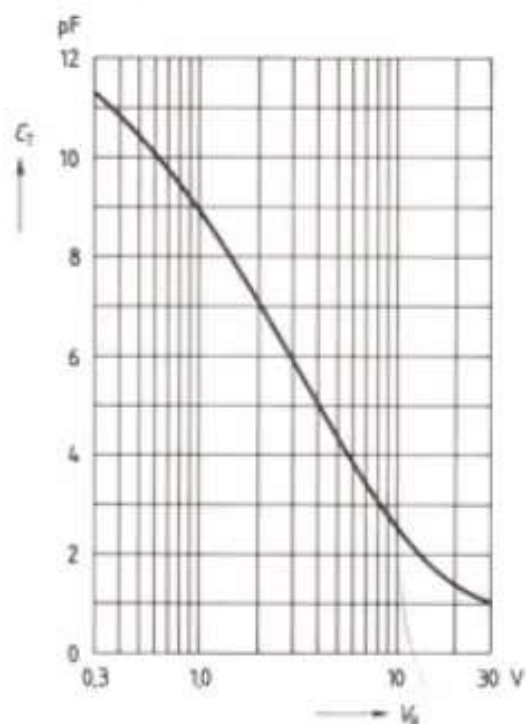
1..28V / 1-9pF

# DATASHEET

## BB 801

Kenndaten ( $T_A = 25^\circ\text{C}$ )

|                                                   |                          | min | typ | max |          |
|---------------------------------------------------|--------------------------|-----|-----|-----|----------|
| Sperrstrom                                        | $I_R$                    | —   | —   | 20  | nA       |
| $V_R = 28\text{ V}$                               |                          | —   | —   | 500 | nA       |
| 28 V, $T_A = 60^\circ\text{C}$                    |                          |     |     |     |          |
| Diodenkapazität, $f = 1\text{ MHz}$               | $C_T$                    | —   | 9   | —   | pF       |
| $V_R = 1\text{ V}$                                |                          | —   | 1   | —   | pF       |
| 28 V                                              |                          |     |     |     |          |
| Kapazitätsverhältnis                              | $\frac{C_{T1}}{C_{T28}}$ | —   | 9   | —   | —        |
| $V_R = 1\text{ V}, 28\text{ V}; f = 1\text{ MHz}$ |                          |     |     |     |          |
| Serienwiderstand                                  | $r_s$                    | —   | 1   | —   | $\Omega$ |
| $C_T = 9\text{ pF}, f = 100\text{ MHz}$           |                          |     |     |     |          |
| Gehäusekapazität                                  | $C_C$                    | —   | 0,1 | —   | pF       |
| $f = 1\text{ MHz}$                                |                          |     |     |     |          |

Diodenkapazität  $C_T = f(V_R)$  $f = 1\text{ MHz}$ 

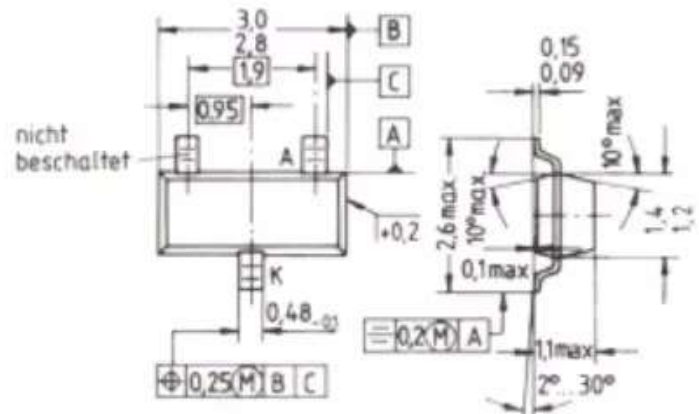
## Silizium-Abstimm-diode

BB 801

## Vorläufige Daten

SOT 23

- Für Schwingkreisabstimmung bis 2 GHz insbesondere in TV-SAT-Tunern
- Niedrige Endkapazität
- Hoher nutzbarer Kapazitätshub
- Kunststoff-Miniaturgehäuse für Oberflächenmontage (SMD)



|           |                        |
|-----------|------------------------|
| Typ       | BB 801                 |
| Best.-Nr. | Schüttgut: Q62702-B346 |
| Stempel   | UF                     |

## Grenzdaten

|                             |           |             |                  |
|-----------------------------|-----------|-------------|------------------|
| Sperrspannung               | $V_R$     | 28          | V                |
| Spitzensperrspannung        | $V_{RM}$  | 30          | V                |
| Durchlaßstrom               | $I_F$     | 20          | mA               |
| $T_A \leq 60^\circ\text{C}$ |           |             |                  |
| Betriebstemperatur          | $T_{op}$  | 100         | $^\circ\text{C}$ |
| Lagertemperatur             | $T_{stg}$ | -65... +150 | $^\circ\text{C}$ |

Miniature plastic package

| Type |          | Characteristics ( $T_A = 25^{\circ}\text{C}$ ) |            |                 |                 |                   | Applications                | Figure |
|------|----------|------------------------------------------------|------------|-----------------|-----------------|-------------------|-----------------------------|--------|
|      |          | $C_1$                                          |            | $C_{T1}/C_{T2}$ | $V_{R1}/V_{R2}$ | $r_s$             |                             |        |
|      |          | pF                                             | $V_R$<br>V |                 |                 |                   |                             |        |
| ▼    | BB 515 B | 1.85 ... 2.25                                  | 28         | 8 ... 9.5       | 1 : 28          | 0.55              | UHF tuners                  | 7      |
| ▼    | BB 515 G | 1.8 ... 2.4                                    | 28         | 7.5 ... 9.5     | 1 : 28          | 0.75 ( $\leq 1$ ) | VHF tuners                  |        |
| ▼    | BB 619 A | 2.5 ... 3                                      | 28         | $\approx 12$    | 1 : 28          | 0.65              | VHF (CATV/hyperband) tuners |        |
| ▼    | BB 619 B | 2.8 ... 3.2                                    | 28         | $\approx 12$    | 1 : 28          | 0.65              |                             |        |
| ▼    | BB 620   | 3.75                                           | 28         | $\approx 19$    | 1 : 28          | 1.3               |                             |        |

Plastic package SOT 23

|          |             |    |     |        |      |                          |   |
|----------|-------------|----|-----|--------|------|--------------------------|---|
| ▼ BB 801 | 1           | 28 | 9   | 1 : 28 | 1    | Indoor unit (TV SAT)     | 8 |
| BB 804   | 42 ... 47.5 | 2  | 1.7 | 2 : 8  | 0.25 | FM tuners for car radios | 9 |
| ▼ BB 814 | 44.75       | 2  | 2.2 | 2 : 8  | 0.25 |                          |   |

Mini-plast

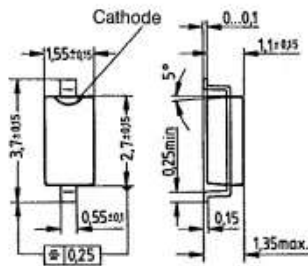


Figure 7

SOT 23

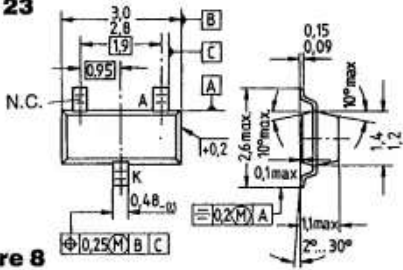


Figure 8

SOT 23

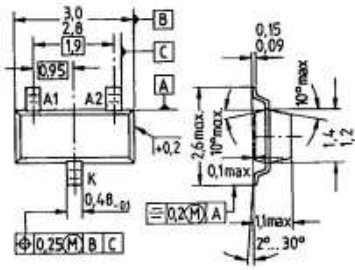


Figure 9