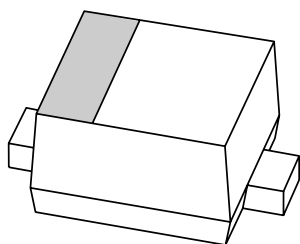


# DATA SHEET



## FEATURES

- Very steep C/V curve
- C0.2: 30.5 pF; C2.3: 9.5 pF
- C0.2 to C2.3 ratio: min. 2.5
- Very low series resistance
- Ultra small SMD plastic package.

## APPLICATIONS

- Electronic tuning in FM radio
- Voltage Controlled Oscillators (VCO).

## DESCRIPTION

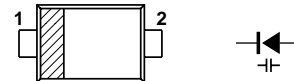
The BB202 is a variable capacitance diode, fabricated in planar technology, and encapsulated in the SOD523 ultra small SMD plastic package.

## MARKING

TYPE NUMBER	MARKING CODE
BB202	L2

## PINNING

PIN	DESCRIPTION
1	cathode
2	anode



MBK441

The marking bar indicates the cathode.

Fig.1 Simplified outline (SOD523) and symbol.

## LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 60134).

SYMBOL	PARAMETER	MIN.	MAX.	UNIT
$V_R$	continuous reverse voltage	–	6	V
$I_F$	continuous forward current	–	10	mA
$T_{stg}$	storage temperature	–55	+85	°C
$T_j$	operating junction temperature	–55	+85	°C

## ELECTRICAL CHARACTERISTICS

$T_j = 25\text{ °C}$  unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
$I_R$	reverse current	$V_R = 6\text{ V}$ ; see Fig.3	–	–	10	nA
		$V_R = 6\text{ V}$ ; $T_j = 85\text{ °C}$ ; see Fig.3	–	–	100	nA
$r_s$	diode series resistance	$f = 100\text{ MHz}$ ; $C = 30\text{ pF}$	–	0.35	0.6	$\Omega$
$C_d$	diode capacitance	$V_R = 0.2$ ; $f = 1\text{ MHz}$ ; see Fig.2 and Fig.4	28.2	–	33.5	pF
		$V_R = 2.3$ ; $f = 1\text{ MHz}$ ; see Fig.2 and Fig.4	7.2	–	11.2	pF
$\frac{C_{d(0.2V)}}{C_{d(2.3V)}}$	capacitance ratio	$f = 1\text{ MHz}$	2.5	–	–	