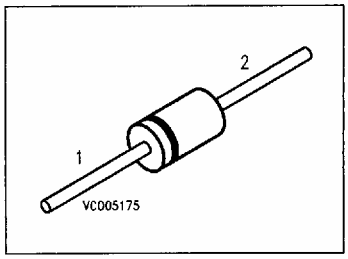
SIEMENS

Silicon Variable Capacitance Diodes

BB 609 A
BB 609 B

- Especially for tuning of extended frequency bands in VHF and CATV tuners
- Not for new design



Type	Marking	Ordering Code	Pin Configuration	Package[1)]
BB 609 A	white	Q62702-B196		DO-35 DHD
BB 609 B		Q62702-B197		

Maximum Ratings

Parameter	Symbol	Values	Unit
Peak reverse voltage	V_{RM}	30	V
Forward current, $T_A \leq 60$ °C	I_F	20	mA
Operating temperature range	T_{op}	– 55 ... + 100	°C
Storage temperature range	T_{stg}	– 55 ... + 150	

Electrical Characteristics
at T_A = 25 °C, unless otherwise specified.

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
Reverse current	I_R				nA
V_R = 30 V		–	–	20	
V_R = 30 V, T_A = 60 °C		–	–	200	
Diode capacitance, f = 1 MHz	C_T				pF
BB 609 A: V_R = 1 V		32.5	–	–	
V_R = 28 V		2.5	–	3	
BB 609 B: V_R = 1 V		33.5	–	–	
V_R = 28 V		2.8	–	3.2	
Capacitance ratio	$\frac{C_{T1}}{C_{T28}}$	12	–	15	–
V_R = 1 V, 28 V; f = 1 MHz					
Capacitance matching	$\frac{\Delta C_T}{C_T}$	–	–	2.5	%
V_R = 1 V ... 28 V, f = 1 MHz					
Series resistance	r_S	–	0.7	1	Ω
C_T = 12 pF, f = 100 MHz					
Series inductance	L_S	–	3	–	nH

Diode capacitance $C_T = f(V_R)$
f = 1 MHz