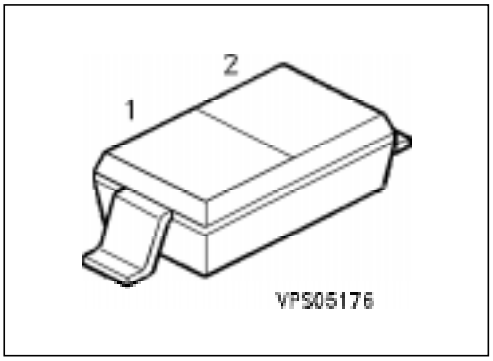
SIEMENS

Silicon Variable Capacitance Diode — BB 619

- For tuning of extended frequency bands in VHF TV/VTR tuners



Type	Ordering Code (tape and reel)	Pin Configuration 1		2	Marking	Package
BB 619	Q62702-B570	C		A	yellow S	SOD-123

Maximum Ratings

Parameter	Symbol	Values	Unit
Reverse voltage	V_R	30	V
Reverse voltage ($R \geq 5$ kΩ)	V_{RM}	35	
Forward current	I_F	20	mA
Operating temperature range	T_{op}	– 55 … + 150	°C
Storage temperature range	T_{stg}	– 55 … + 150	

Thermal Resistance

Junction - ambient	$R_{th\ JA}$	≤ 450	K/W

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
Reverse current V_R = 30 V V_R = 30 V, T_A = 85 °C	I_R	 – –	 – –	 10 200	nA
Diode capacitance, f = 1 MHz V_R = 1 V V_R = 28 V	C_T	 36 2.4	 38.7 2.6	 42 2.9	pF
Capacitance ratio V_R = 1 V, 28 V; f = 1 MHz	$\frac{C_{T1}}{C_{T28}}$	13.5	14.9	–	–
Capacitance matching V_R = 1 V … 28 V; f = 1 MHz	$\frac{\Delta C_T}{C_T}$	–	–	2.5	%
Series resistance C_T = 12 pF, f = 100 MHz	r_s	–	0.6	–	Ω
Series inductance	L_s	–	2	–	nH

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

