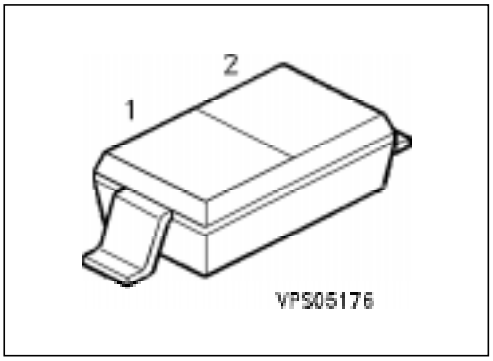
SIEMENS

Silicon Variable Capacitance Diode — BB 419

- For VHF tuned circuit applications



Type	Marking	Ordering Code (tape and reel)	Pin Configuration	Package[1)]
BB 419	white 2	Q62702-B499		SOD-123

Maximum Ratings

Parameter	Symbol	Values	Unit
Reverse voltage	V_R	28	V
Peak reverse voltage	V_{RM}	30	
Forward current, $T_A \leq 60$ °C	I_F	20	mA
Operating temperature range	T_{op}	– 55 … + 125	°C
Storage temperature range	T_{stg}	– 55 … + 150	

Thermal Resistance

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

1) For detailed information see chapter Package Outlines.

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
Reverse current V_R = 28 V V_R = 28 V, T_A = 60 °C	I_R	 – –	 – –	 20 200	nA
Diode capacitance, f = 1 MHz V_R = 3 V V_R = 25 V	C_T	 26 4.3	 – –	 32 6	pF
Capacitance ratio f = 1 MHz, V_R = 3 V, 25 V	C_{T3} / C_{T25}	5	–	6.5	–
Capacitance matching V_R = 3 V … 25 V	ΔC_T / C_T	–	–	3	%
Series resistance f= 100 MHz, C_T = 12 pF	r_s	–	0.35	0.5	Ω
Figure of merit f = 50 MHz, V_R = 3 V f= 200 MHz, V_R = 25 V	Q	 –	 280 600	 –	–

Diode capacitance $C_T = f(V_R)$