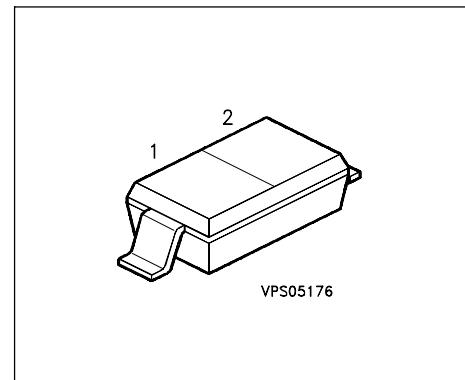


Silicon Tuning Diode**Preliminary data**

- High Q hyperabrupt tuning diode
- Designed for low tuning voltage operation for VCO's in mobile communications equipment
- High ratio at low reverse voltage



Type	Marking	Ordering Code	Pin Configuration		Package
BBY 53-03W	white/5	Q62702-B0825	1 = C	2 = A	SOD-323

Maximum Ratings

Parameter	Symbol	Values	Unit
Diode reverse voltage	V_R	6	V
Forward current	I_F	20	mA
Operating temperature range	T_{op}	- 55 ... + 150	°C
Storage temperature	T_{stg}	- 55 ... + 150	

Electrical Characteristics at $T_A=25^\circ\text{C}$, unless otherwise specified

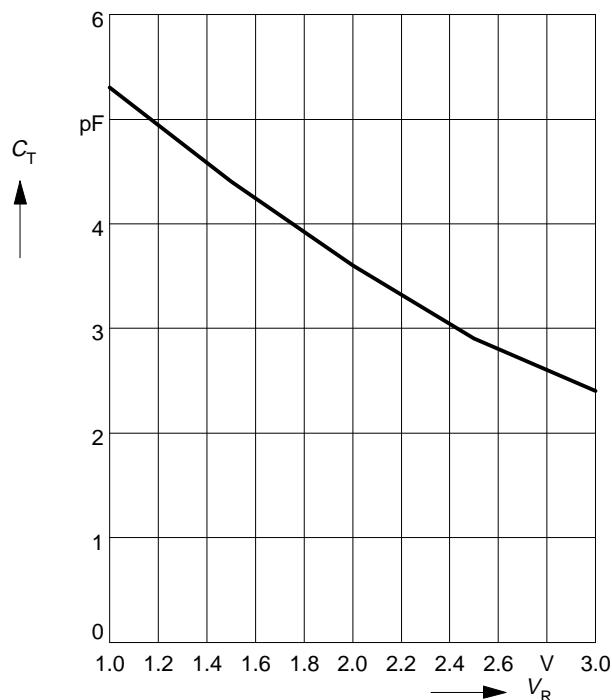
Parameter	Symbol	Values			Unit
		min.	typ.	max.	

DC characteristics

Reverse current $V_R = 4 \text{ V}, T_A = 25^\circ\text{C}$	I_R	-	-	10	nA
$V_R = 4 \text{ V}, T_A = 65^\circ\text{C}$		-	-	200	

AC characteristics

Diode capacitance $V_R = 1 \text{ V}, f = 1 \text{ MHz}$	C_T	4.8	5.3	5.8	pF
$V_R = 3 \text{ V}, f = 1 \text{ MHz}$		1.85	2.4	3.1	
Capacitance ratio $V_R = 1 \text{ V}, V_R = 3 \text{ V}, f = 1 \text{ MHz}$	C_{T1}/C_{T3}	1.8	2.2	2.6	-
Series resistance $V_R = 1 \text{ V}, f = 1 \text{ GHz}$	r_s	-	0.37	-	Ω
Case capacitance $f = 1 \text{ MHz}$	C_C	-	0.12	-	pF
Series inductance chip to ground	L_s	-	2	-	nH

Diode capacitance $C_T = f(V_R)$ $f = 1\text{MHz}$ **Package**