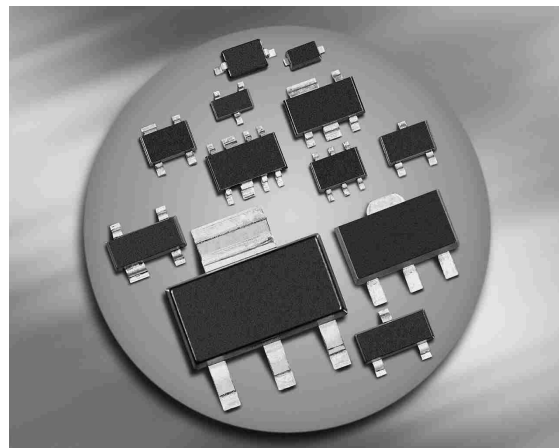
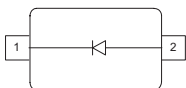


Silicon Tuning Diodes

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



BBY52-02L
BBY52-02W



Type	Package	Configuration	L_S (nH)	Marking
BBY52-02L*	TSLP-2-1	single, leadless	0.4	K
BBY52-02W	SCD80	single	0.6	KK

* Preliminary

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

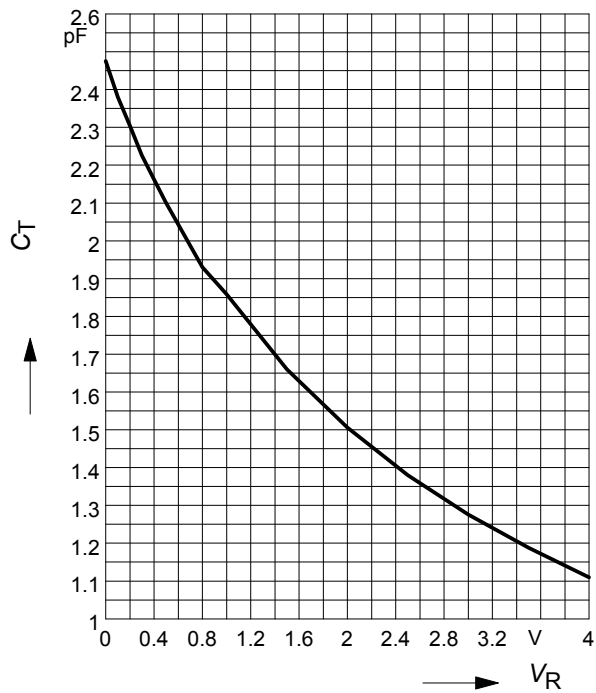
Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	7	V
Forward current	I_F	20	mA
Operating temperature range	T_{op}	-55 ... 150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 ... 150	

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC Characteristics					
Reverse current $V_R = 6\text{ V}$ $V_R = 6\text{ V}, T_A = 85\text{ }^{\circ}\text{C}$	I_R	- - -	- - -	10 200	nA
AC Characteristics					
Diode capacitance $V_R = 1\text{ V}, f = 1\text{ MHz}$ $V_R = 2\text{ V}, f = 1\text{ MHz}$ $V_R = 3\text{ V}, f = 1\text{ MHz}$ $V_R = 4\text{ V}, f = 1\text{ MHz}$	C_T	1.4 0.95 0.9 0.85	1.85 1.5 1.35 1.15	2.2 2 1.75 1.45	pF
Capacitance ratio $V_R = 1\text{ V}, V_R = 4\text{ V}, f = 1\text{ MHz}$	C_{T1}/C_{T4}	1.1	1.6	2.1	
Series resistance $V_R = 1\text{ V}, f = 1\text{ GHz}$	r_S	-	0.9	1.7	Ω

Diode capacitance $C_T = f(V_R)$

$f = 1\text{MHz}$



Reverse current $I_R = f(V_R)$

$T_A = 25^\circ\text{C}$

