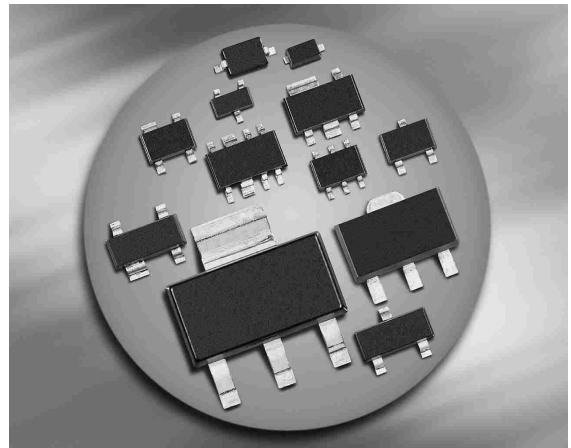
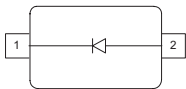


**TY Tuning Diode**

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