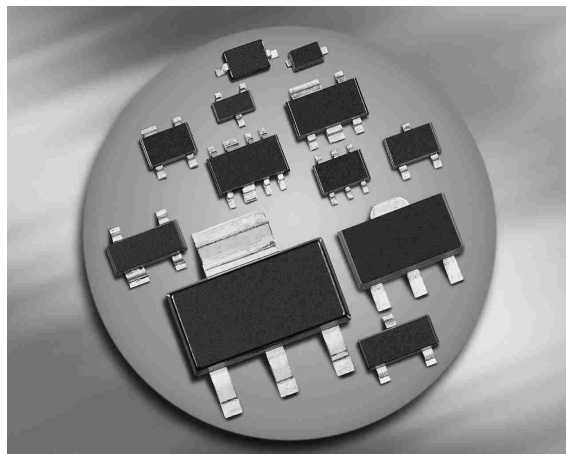
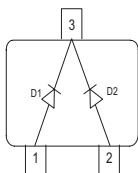


Silicon Variable Capacitance Diode

- For FM radio tuner with extended frequency band
- High tuning ratio at low supply voltage (car radio)
- Monolithic chip (common cathode) for perfect dual diode tracking
- Good linearity for C- V curve
- High figure of merit
- Pb-free (RoHS compliant) package



BB914



Type	Package	Configuration	L_S (nH)	Marking
BB914	SOT23	common cathode	1.8	SM

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

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	18	V
Peak reverse voltage ($R \geq 5\text{k}\Omega$)	V_{RM}	20	
Forward current	I_F	50	mA
Operating temperature range	T_{op}	-55 ... 125	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 ... 150	

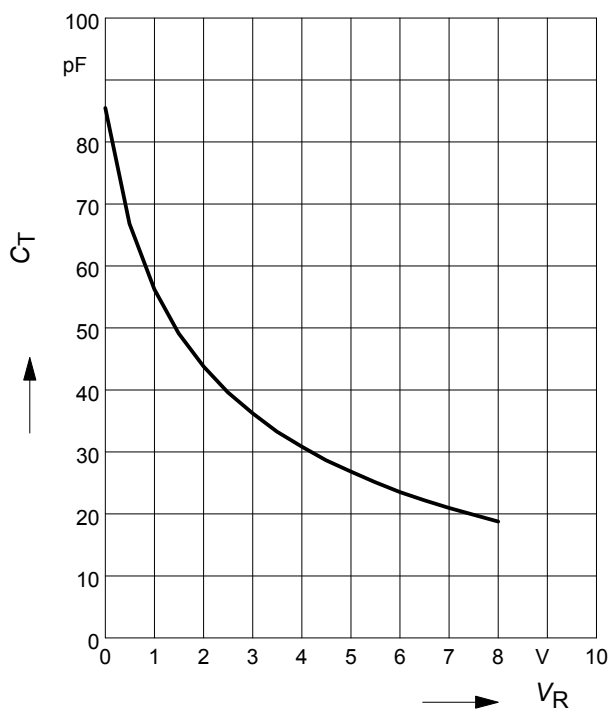
Electrical Characteristics at $T_A = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC Characteristics					
Reverse current $V_R = 16\text{ V}$ $V_R = 16\text{ V}, T_A = 85\text{ }^{\circ}\text{C}$	I_R	- - -	- - -	20 200	nA
AC Characteristics					
Diode capacitance $V_R = 2\text{ V}, f = 1\text{ MHz}$ $V_R = 8\text{ V}, f = 1\text{ MHz}$	C_T	42.5 17.6	43.75 18.7	45 19.75	pF
Capacitance ratio $V_R = 2\text{ V}, V_R = 8\text{ V}, f = 1\text{ MHz}$	C_{T2}/C_{T8}	2.28	2.34	2.42	
Capacitance matching ¹⁾ $V_R = 2\text{ V}, V_R = 8\text{ V}, f = 1\text{ MHz}$	$\Delta C_T/C_T$	-	-	1.5	%
Series resistance $V_R = 2\text{ V}, f = 100\text{ MHz}$	r_S	-	0.28	-	Ω

¹For details please refer to Application Note 047.

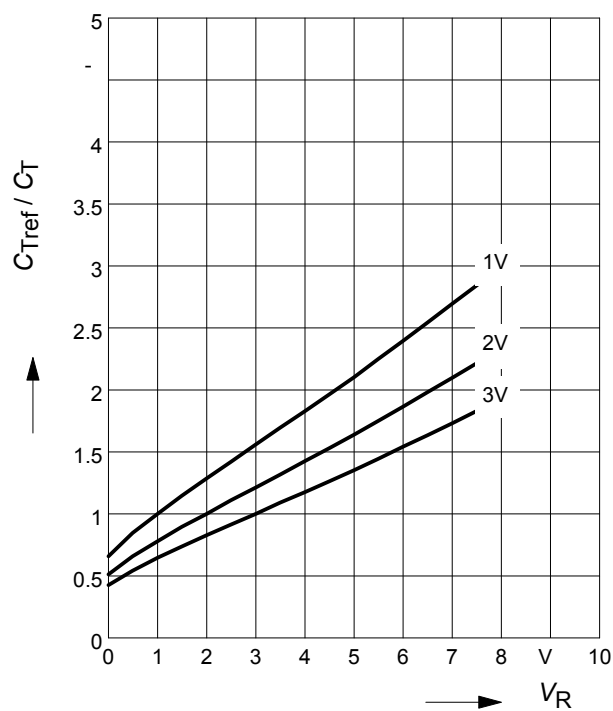
Diode capacitance $C_T = f(V_R)$

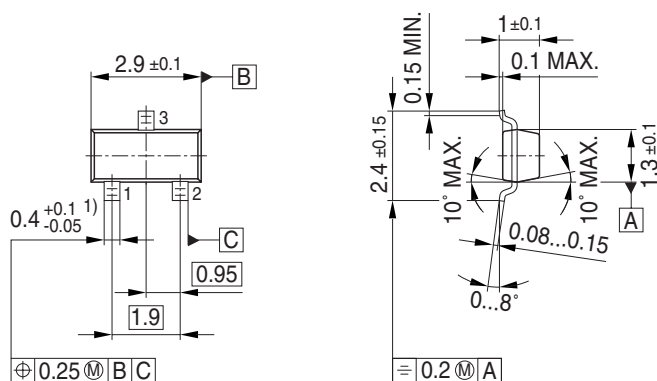
$f = 1\text{MHz}$



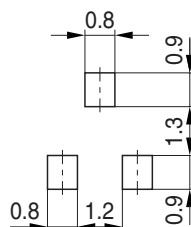
Capacitance ratio $C_{Tref}/C_T = f(V_R)$

$f = 1\text{MHz}$



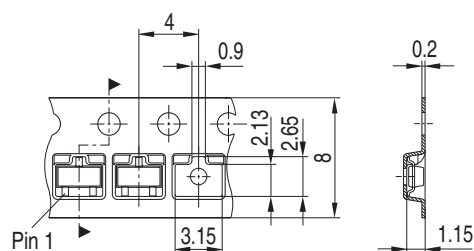


Foot Print



The diagram shows a top-down view of a BCW66 LED package. It is a rectangular component with four pins. The top pin is labeled 'Pin 1'. The package has a central rectangular area containing the text 'EHS' and '2005, June' (Date code (YM)). The Infineon logo is visible in the top right corner. The text 'BCW66' and 'Type code' are located at the bottom right.

Reel ø180 mm = 3.000 Pieces/Reel
Reel ø330 mm = 10.000 Pieces/Reel



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