

# VCTCXO

## PC115B Series

### Sinewave

### 6PAD SMD PACKAGE

#### \* PART NUMBERING GUIDE

**PC115BH - 5 S 10 3 D 5 - 20.000M**

PC115B : without Trimmer  
 PC115BH : with Trimmer

Supply Voltage  
 5 : 5.0V  
 3 : 3.3V

Output  
 S : SINEWAVE

Stability vs. Temperature  
 See Table1

Frequency  
 M : MHz

Pulling Range  
 5 :  $\pm 5$  ppm min  
 10 :  $\pm 10$  ppm min

Temperature Range  
 Table2

MECHANICAL DIMENSIONS	ELECTRICAL SPECIFICATION																												
<p>OPTION</p> <p>PIN CONNECTION</p> <p>#1 GND          #2 GND          #3 OUTPUT          #4 GND          #5 V.C          #6 Vcc</p> <p>Recommended Soldering Pattern</p>	<table border="1"> <tr> <td>Frequency range</td> <td>10.000MHz to 50.000MHz Contact us if need high frequency</td> </tr> <tr> <td>Frequency Stability vs. Temperature vs. Supply Voltage vs. Load vs. Aging</td> <td><math>\pm 0.5</math> ppm to <math>\pm 5.0</math>ppm  <math>\pm 0.1 / \pm 0.2</math> ppm max / <math>V_{dd} \pm 5\%</math>  <math>\pm 0.2</math> ppm max / <math>15\text{pF} \pm 10\%</math>  <math>\pm 1.0</math> ppm max/ year</td> </tr> <tr> <td>Temperature Range Operating Storage</td> <td>See Table 2  <math>-55^\circ\text{C}</math> to <math>125^\circ\text{C}</math></td> </tr> <tr> <td>Supply Voltage</td> <td><math>3.3\text{V} \pm 5\%</math>  <math>5.0\text{V} \pm 5\%</math></td> </tr> <tr> <td>Input Current Sinewave</td> <td>10.00MHz ~ 50.000MHz            12.0mA max ~ 20mA max</td> </tr> <tr> <td>Output characteristics</td> <td>Level 3.3V Sinewave 0 dBm typ            5.0V 10 dBm typ            Load 50<math>\Omega</math></td> </tr> <tr> <td>Phase Noise (typical) 20MHz offset</td> <td>-80 dBc / Hz @ 10Hz            -120 dBc / Hz @ 100Hz            -135 dBc / Hz @ 1KHz            -140 dBc / Hz @ 10KHz            -145 dBc / Hz @ 100KHz</td> </tr> <tr> <td>Frequency Adjustment</td> <td><math>\pm 3</math>ppm min by internal trimmer (OPTION)</td> </tr> <tr> <td>Voltage Control Characteristics</td> <td></td> </tr> <tr> <td>Output Pulling Range (<math>\Delta F / \Delta V</math>)</td> <td><math>\pm 5.0</math>ppm or <math>\pm 10</math>ppm min            (<math>\Delta F / \Delta V &gt; \pm 20</math>ppm is available, please contact us)</td> </tr> <tr> <td>Control Voltage Range</td> <td><math>1.65\text{V} \pm 1.5\text{V}</math> (<math>V_{dd} : 3.3\text{V}</math>), <math>2.5\text{V} \pm 2.0\text{V}</math> (<math>V_{dd} : 5.0\text{V}</math>)</td> </tr> </table>	Frequency range	10.000MHz to 50.000MHz Contact us if need high frequency	Frequency Stability vs. Temperature vs. Supply Voltage vs. Load vs. Aging	$\pm 0.5$ ppm to $\pm 5.0$ ppm $\pm 0.1 / \pm 0.2$ ppm max / $V_{dd} \pm 5\%$ $\pm 0.2$ ppm max / $15\text{pF} \pm 10\%$ $\pm 1.0$ ppm max/ year	Temperature Range Operating Storage	See Table 2 $-55^\circ\text{C}$ to $125^\circ\text{C}$	Supply Voltage	$3.3\text{V} \pm 5\%$ $5.0\text{V} \pm 5\%$	Input Current Sinewave	10.00MHz ~ 50.000MHz 12.0mA max ~ 20mA max	Output characteristics	Level 3.3V Sinewave 0 dBm typ 5.0V 10 dBm typ Load 50 $\Omega$	Phase Noise (typical) 20MHz offset	-80 dBc / Hz @ 10Hz -120 dBc / Hz @ 100Hz -135 dBc / Hz @ 1KHz -140 dBc / Hz @ 10KHz -145 dBc / Hz @ 100KHz	Frequency Adjustment	$\pm 3$ ppm min by internal trimmer (OPTION)	Voltage Control Characteristics		Output Pulling Range ( $\Delta F / \Delta V$ )	$\pm 5.0$ ppm or $\pm 10$ ppm min ( $\Delta F / \Delta V > \pm 20$ ppm is available, please contact us)	Control Voltage Range	$1.65\text{V} \pm 1.5\text{V}$ ( $V_{dd} : 3.3\text{V}$ ), $2.5\text{V} \pm 2.0\text{V}$ ( $V_{dd} : 5.0\text{V}$ )						
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