

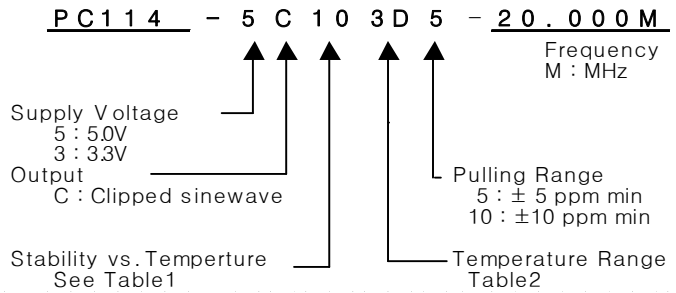
VCTCXO

PC114 Series

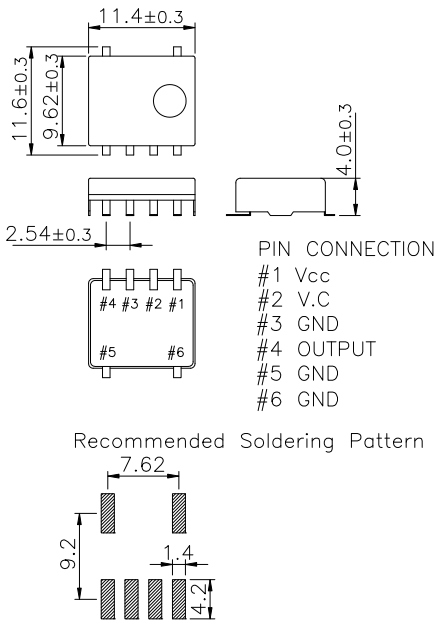
Clipped sinewave

6PAD SMD PACKAGE

* PART NUMBERING GUIDE



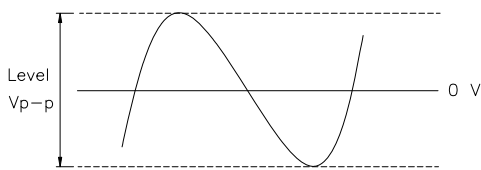
MECHANICAL DIMENSIONS



ELECTRICAL SPECIFICATION

Frequency range	6.000MHz to 190.000MHz (All combinations for Frequency in the range and temp. stability can't be available, please contact factory.)
Frequency Stability vs. Temperature vs. Supply Voltage vs. Load vs. Aging	± 0.5 ppm to ± 5.0 ppm ± 0.1 / ± 0.2 ppm max / $V_{dd} \pm 5\%$ ± 0.2 ppm max / $15\text{pF} \pm 10\%$ ± 1.0 ppm max/ year
Temperature Range Operating Storage	See Table 2 -55°C to 125°C
Supply Voltage	$3.3\text{V} \pm 5\%$ $5.0\text{V} \pm 5\%$
Input Current Clipped sinewave	6.00MHz ~ 190.000MHz 2.0mA max ~ 30mA max
Output characteristics	Level 3.3V 5.0V Clipped sinewave 0.8Vp-p min 1.0Vp-p min Load 10k Ω //10pF
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	± 3 ppm min by internal trimmer
Voltage Control Characteristics	
Output Pulling Range ($\Delta F / \Delta V$)	± 5.0 ppm or ± 10 ppm min ($\Delta F / \Delta V > \pm 20$ ppm is available, please contact us)
Control Voltage Range	$1.65\text{V} \pm 1.5\text{V}$ ($V_{dd} : 3.3\text{V}$), $2.5\text{V} \pm 2.0\text{V}$ ($V_{dd} : 5.0\text{V}$)

OUTPUT WAVEFORM



ENVIRONMENTAL & MECHANICAL SPECIFICATION

Shock	MIL-STD-883C, Method 2002, Condition B
Vibration	MIL-STD-883C, Method 2007, Condition A
Solderability	MIL-STD-883C, Method 2003
Seal integrity	MIL-STD-883C, Method 1014, Condition C & A2
Marking	MIL-STD-202F, Method 215

TEST CIRCUIT

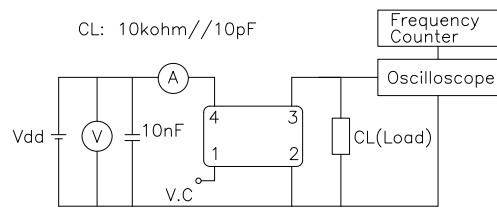


TABLE1

Symbol	Stability
05	± 0.5 ppm
10	± 1.0 ppm
15	± 1.5 ppm
20	± 2.0 ppm
25	± 2.5 ppm
30	± 3.0 ppm
35	± 3.5 ppm
50	± 5.0 ppm

TABLE2

Symbol	Temp.	Symbol	Temp.
0	0 $^\circ\text{C}$	A	50 $^\circ\text{C}$
1	-10 $^\circ\text{C}$	B	60 $^\circ\text{C}$
2	-20 $^\circ\text{C}$	C	70 $^\circ\text{C}$
3	-30 $^\circ\text{C}$	D	75 $^\circ\text{C}$
4	-40 $^\circ\text{C}$	E	80 $^\circ\text{C}$
		F	85 $^\circ\text{C}$