

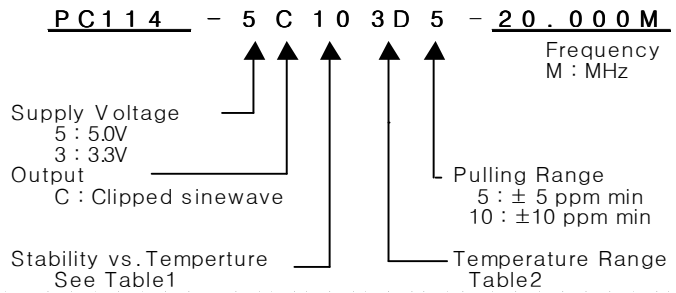
VCTCXO

PC114 Series

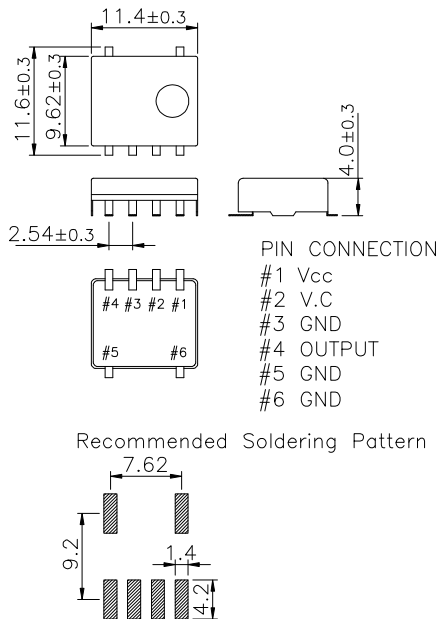
Clipped sinewave

6PAD SMD PACKAGE

* PART NUMBERING GUIDE



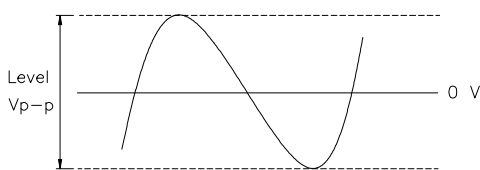
MECHANICAL DIMENSIONS



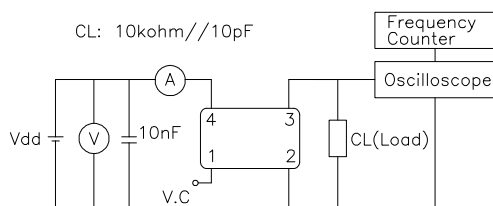
ELECTRICAL SPECIFICATION

Frequency range	10.000MHz to 50.000MHz Contact us if need high frequency
Frequency Stability vs. Temperature vs. Supply Voltage vs. Load vs. Aging	± 0.5 ppm to ± 5.0 ppm $\pm 0.1 / \pm 0.2$ 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	10.00MHz ~ 50.000MHz 2.0mA max ~ 10mA max
Output characteristics	Level 3.3V 0.8Vp-p min 5.0V 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



TEST CIRCUIT



ENVIROMENTAL & 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

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°C	A	50°C
1	-10°C	B	60°C
2	-20°C	C	70°C
3	-30°C	D	75°C
4	-40°C	E	80°C
		F	85°C