

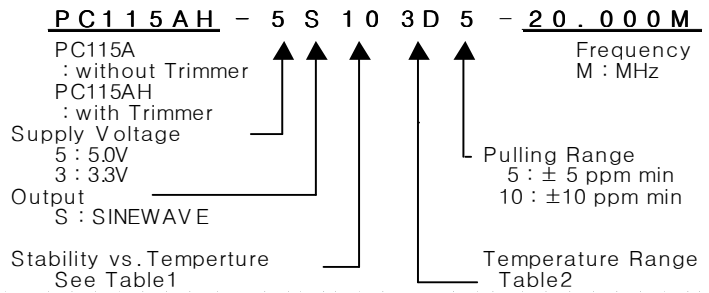
VCTCXO

PC115A Series

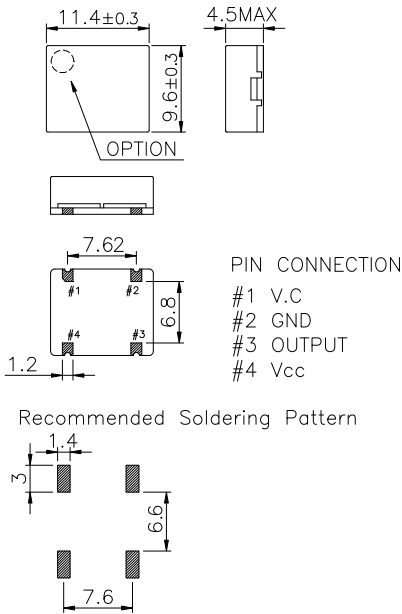
Sinewave

4PAD SMD PACKAGE

* PART NUMBERING GUIDE



MECHANICAL DIMENSIONS



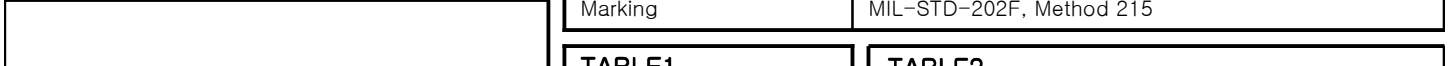
ELECTRICAL SPECIFICATION

Frequency range	10.000MHz to 50.000MHz
Frequency Stability vs. Temperature	± 0.5 ppm to ± 5.0 ppm
vs. Supply Voltage	$\pm 0.1 / \pm 0.2$ ppm max / $V_{dd} \pm 5\%$
vs. Load	± 0.2 ppm max / $15\text{pF} \pm 10\%$
vs. Aging	± 1.0 ppm max/ year
Temperature Range	
Operating	See Table 2
Storage	-55 $^{\circ}$ C to 125 $^{\circ}$ C
Supply Voltage	3.3V $\pm 5\%$ 5.0V $\pm 5\%$
Input Current Sinewave	10.00MHz ~ 50.000MHz 12.0mA max ~ 20mA max
Output characteristics	Level 3.3V Sinewave 5.0V 0 dBm typ 10 dBm typ Load 50 Ω
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 (OPTION)
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	1.65V ± 1.5 V ($V_{dd} : 3.3$ V), 2.5V ± 2.0 V ($V_{dd} : 5.0$ 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 $^{\circ}$ C	A	50 $^{\circ}$ C
1	-10 $^{\circ}$ C	B	60 $^{\circ}$ C
2	-20 $^{\circ}$ C	C	70 $^{\circ}$ C
3	-30 $^{\circ}$ C	D	75 $^{\circ}$ C
4	-40 $^{\circ}$ C	E	80 $^{\circ}$ C
		F	85 $^{\circ}$ C