

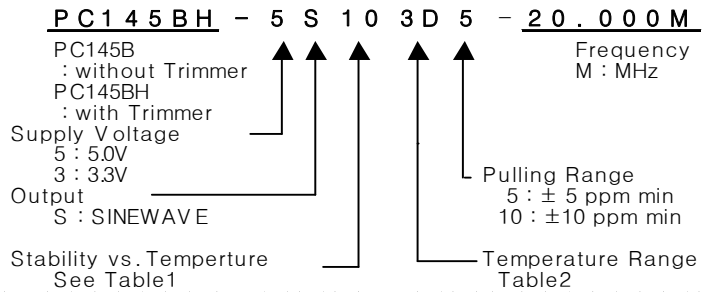
# VCTCXO

## PC145B Series

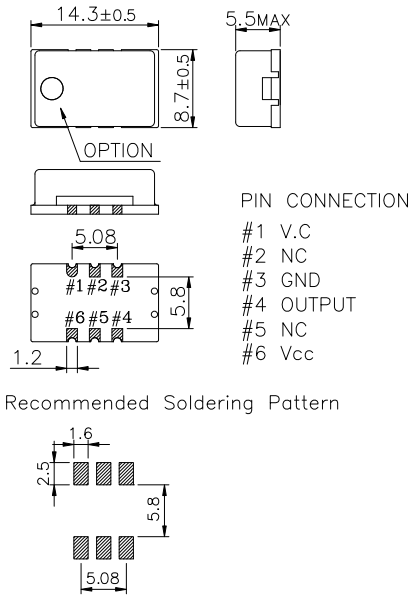
### Sinewave

### 6PAD SMD PACKAGE

#### \* PART NUMBERING GUIDE



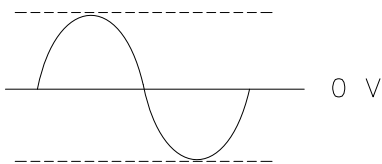
### MECHANICAL DIMENSIONS



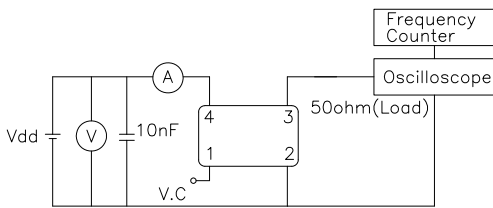
### ELECTRICAL SPECIFICATION

Frequency range	1.000MHz to 600.000MHz (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	$\pm 0.5$ 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	1.00MHz ~ 600.000MHz 10.0mA max ~ 50mA max
Output characteristics	Sinewave Level 3.3V 0 dBm typ 5.0V +5 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)
<b>Voltage Control Characteristics</b>	
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	$1.65\text{V} \pm 1.5\text{V}$ ( $V_{dd} : 3.3\text{V}$ ), $2.5\text{V} \pm 2.0\text{V}$ ( $V_{dd} : 5.0\text{V}$ )

### 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	$\pm 0.5$ ppm
10	$\pm 1.0$ ppm
15	$\pm 1.5$ ppm
20	$\pm 2.0$ ppm
25	$\pm 2.5$ ppm
30	$\pm 3.0$ ppm
35	$\pm 3.5$ ppm
50	$\pm 5.0$ 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 $^{\circ}\text{C}$