

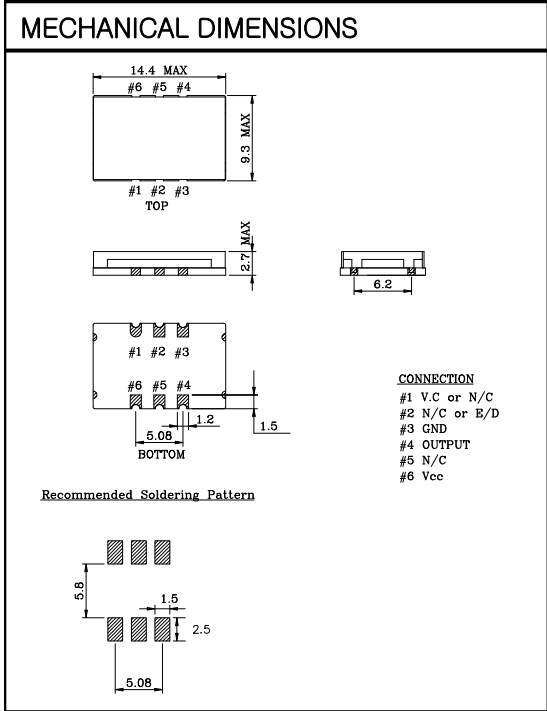
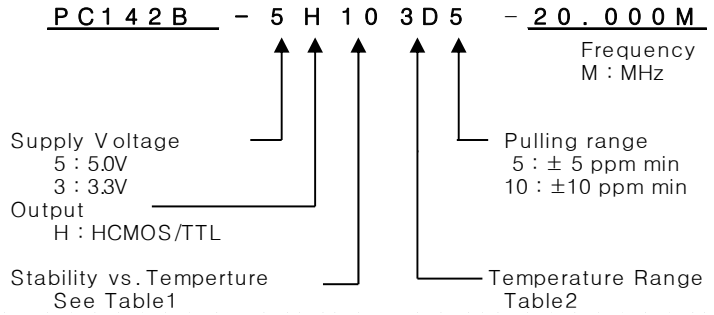
# VCTCXO

## PC142B Series

### HCMOS/TTL

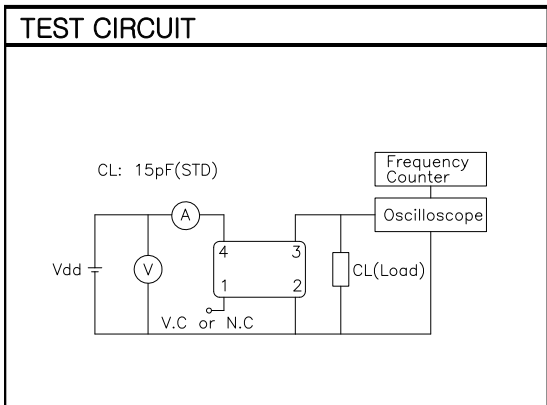
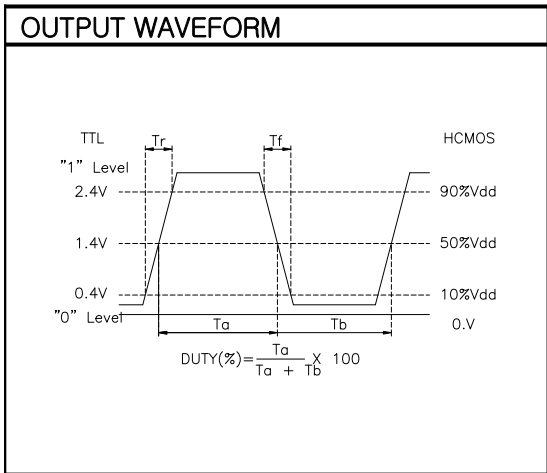
### 6PAD SMD PACKAGE

#### \* PART NUMBERING GUIDE



#### ELECTRICAL SPECIFICATION

Frequency range	1.000KHz to 250.000MHz (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 ±5.0ppm ±0.1 / ±0.3 ppm max / Vdd ± 5% ±0.2 ppm max / 15pF ±10% ±1.0 ppm max/ year																		
Temperature Range Operating Storage	See Table 2 -55°C to 125°C																		
Supply Voltage	3.3V ± 5% 5.0V ± 5%																		
Input Current 3.3 V , 5V	1.000KHz ~ 40.000MHz ~ 250.000MHz 15mA max ~ 30mA max ~ 50mA max																		
Output characteristics	<table border="1"> <thead> <tr> <th></th> <th>HCMOS</th> <th>TTL</th> </tr> </thead> <tbody> <tr> <td>Logic "1"</td> <td>90% Vdd min</td> <td>2.4V min</td> </tr> <tr> <td>Logic "1"</td> <td>10% Vdd max</td> <td>0.4V min</td> </tr> <tr> <td>Load</td> <td>15pF</td> <td>10TTL</td> </tr> <tr> <td>Duty Cycle</td> <td>40/60</td> <td>40/60</td> </tr> <tr> <td>Rise &amp; Fall</td> <td>10nS max</td> <td>10nS max</td> </tr> </tbody> </table>		HCMOS	TTL	Logic "1"	90% Vdd min	2.4V min	Logic "1"	10% Vdd max	0.4V min	Load	15pF	10TTL	Duty Cycle	40/60	40/60	Rise & Fall	10nS max	10nS max
	HCMOS	TTL																	
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Phase Noise (typical) @20MHz	-80 dBc / Hz @ 10Hz -120 dBc / Hz @ 100Hz -135 dBc / Hz @ 1KHz -140 dBc / Hz @ 10KHz -145 dBc / Hz @100KHz																		
Voltage Control Characteristics																			
Output Pulling Range (ΔF/ΔV)	±5.0ppm or ±10ppm min (ΔF/ΔV > ±20ppm is available, please contact us)																		
Control Voltage Range	1.65V ± 1.5V ( Vdd : 3.3V ), 2.5V ± 2.0V ( Vdd : 5.0V )																		



#### 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		TABLE2			
Symbol	Stability	Symbol	Temp.	Symbol	Temp.
05	±0.5ppm	0	0°C	A	50°C
10	±1.0ppm	1	-10°C	B	60°C
15	±1.5ppm	2	-20°C	C	70°C
20	±2.0ppm	3	-30°C	D	75°C
25	±2.5ppm	4	-40°C	E	80°C
30	±3.0ppm			F	85°C
35	±3.5ppm				
50	±5.0ppm				