

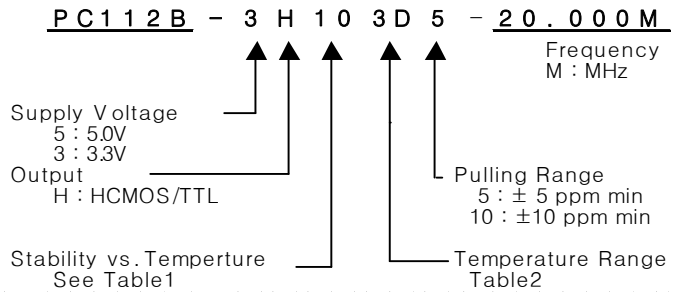
VCTCXO

PC112B Series

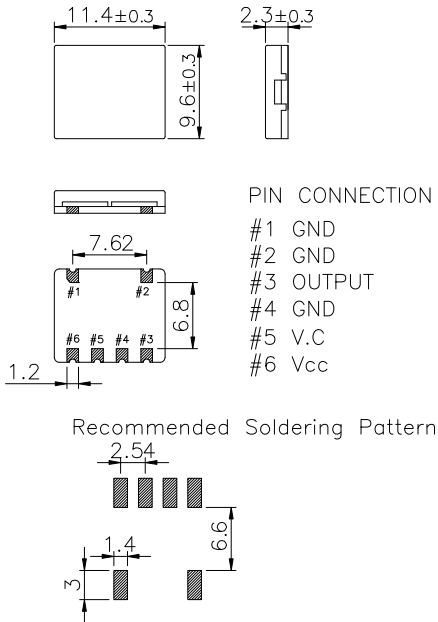
HCMOS/TTL

6PAD SMD PACKAGE

* PART NUMBERING GUIDE



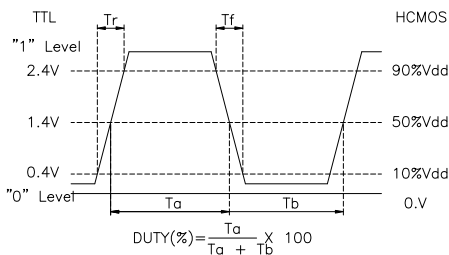
MECHANICAL DIMENSIONS



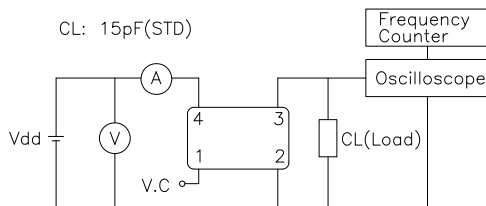
ELECTRICAL SPECIFICATION

| Frequency range | 1.000KHz to 250.000MHz All combination of Frequency range Vs. Package type might not be available ,please contact factory. | | | | | | | | | | | | | | | | | | |
|---|---|----------|-------|-----|-----------|-------------|----------|-----------|-------------|----------|------|------|-------|------------|-------|-------|-------------|----------|----------|
| Frequency Stability vs. Temperature vs. Supply Voltage vs. Load vs. Aging | ±1.0 ppm to ±5.0ppm ±0.2 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 & 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 | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | |
| 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) | | | | | | | | | | | | | | | | | | |

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

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 |