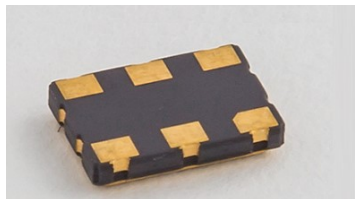




## LVDS SURFACE MOUNT CLOCK OSCILLATOR

### SERIES CL7050



#### ■ ELECTRICAL SPECIFICATION

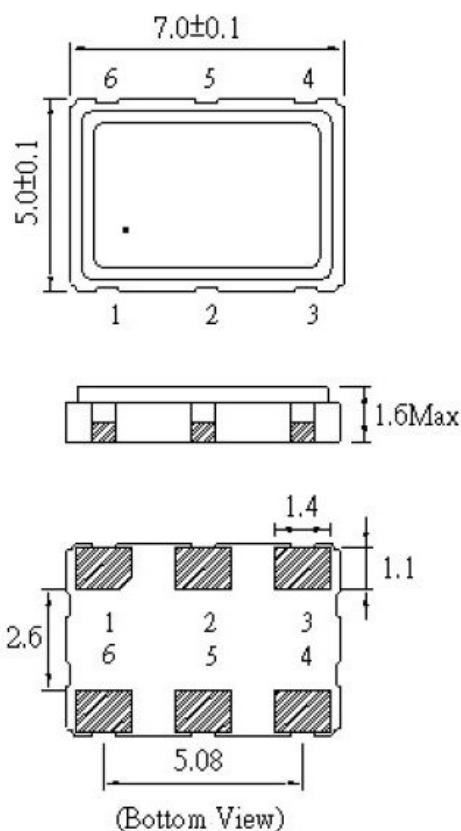
| PARAMETER                         |                                 | VALUE                                                                                              |
|-----------------------------------|---------------------------------|----------------------------------------------------------------------------------------------------|
| Frequency Range                   |                                 | 19.000 ~ 800.000 MHz                                                                               |
| Operating Temperature Range       |                                 | -20°C ~ +70°C Standard<br>-40°C ~ +85°C Extended                                                   |
| Frequency Stability               |                                 | ±25 ppm, ±50 ppm, ±100ppm                                                                          |
| Storage Temperature Range         |                                 | -55°C to +125°C                                                                                    |
| Supply Voltage (Vcc)              |                                 | 2.5 V, 3.3 V                                                                                       |
| Supply Current                    |                                 | 60 mA max                                                                                          |
| Output<br>LVDS                    | Symmetry at 50% V <sub>CC</sub> | 40% to 60%<br>45% to 55%                                                                           |
|                                   | Rise / Fall Time                | 1 ns max at 20% ~ 80% Output swing level                                                           |
|                                   | Logic "0" Level                 | 0.9 V min                                                                                          |
|                                   | Logic "1" Level                 | 1.6 V max                                                                                          |
|                                   | Load                            | 100 Ω (OUT – OUTN Differential)                                                                    |
| Enable / Disable Function         |                                 | Pin 1: High or Open / Output enabled (Pins 4 & 5)<br>Pin 1: Low / Output disabled (High impedance) |
| RMS Phase Jitter (12kHz ~ 20 MHz) |                                 | 1 ps max                                                                                           |



# LVDS SURFACE MOUNT CLOCK OSCILLATOR

## SERIES CL7050

### MECHANICAL SPECIFICATION



**PIN FUNCTIONS:**  
[1] ENABLE / DISABLE  
[2] NC  
[3] GND  
[4] OUTPUT  
[5] COMPLEMENTARY  
OUTPUT  
[6] VCC

### PART NUMBERING SYSTEM

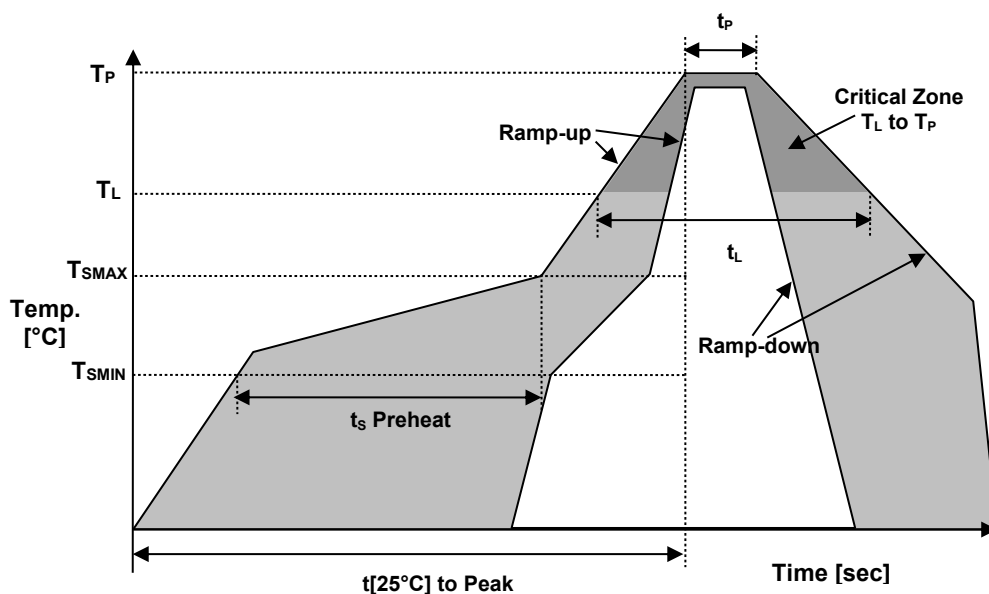
| TYPE                      | SERIES | - | FREQUENCY<br>(MHz)      | - | SUPPLY<br>VOLTAGE<br>(Vcc)   | - | STABILITY<br>(ppm)                          | - | TEMPERATURE<br>RANGE (°C)                  | - | SYMMETRY<br>(Duty Cycle)         | - | TAPE<br>&<br>REEL |
|---------------------------|--------|---|-------------------------|---|------------------------------|---|---------------------------------------------|---|--------------------------------------------|---|----------------------------------|---|-------------------|
| Clock<br>Oscillator<br>CL | 7050   | - | 19.000 ~<br>800.000 MHz | - | 2.5: Vcc=2.5<br>3.3: Vcc=3.3 | - | 25: ±25 ppm<br>50: ±50 ppm<br>100: ±100 ppm | - | blank: -20°C to +70°C<br>X: -40°C to +85°C | - | blank: 40 to 60%<br>T: 45 to 55% | - | TR                |

#### EXAMPLE: CL7050-155.520-2.5-25-X-T-TR

Surface Mount CL7050 LVDS Oscillator, 7.0 x 5.0 mm, 155.520 MHz, 2.5 VDC Supply Voltage, ±25 ppm Overall Stability, from -40°C to +85°C, Symmetry 45% to 55%, Tape and Reel packaging.



### REFLOW PROFILE



| Reflow profile                                         |                                       |                            |
|--------------------------------------------------------|---------------------------------------|----------------------------|
| Temperature Min Preheat                                | $T_{SMIN}$                            | $150^\circ\text{C}$        |
| Temperature Max Preheat                                | $T_{SMAX}$                            | $200^\circ\text{C}$        |
| Time ( $T_{SMIN}$ to $T_{SMAX}$ )                      | $t_s$                                 | 60-180 sec.                |
| Temperature                                            | $T_L$                                 | $217^\circ\text{C}$        |
| Peak Temperature                                       | $T_P$                                 | $260^\circ\text{C}$        |
| Ramp-up rate                                           | $R_{UP}$                              | $3^\circ\text{C/sec max.}$ |
| Ramp-down rate                                         | $R_{DOWN}$                            | $6^\circ\text{C/sec max.}$ |
| Time within $5^\circ\text{C}$ of Peak Temperature      | $t_p$                                 | 10 sec.                    |
| Time $t[25^\circ\text{C}] \text{ to Peak Temperature}$ | $t[25^\circ\text{C}] \text{ to Peak}$ | 480 sec.                   |
| Time                                                   | $t_L$                                 | 60-150 sec.                |

### ENVIRONMENTAL

| PARAMETER                  | VALUE     |
|----------------------------|-----------|
| MOISTURE SENSITIVITY LEVEL | 1         |
| REACH SVHC                 | COMPLIANT |
| RoHS                       | COMPLIANT |
| TERMINATION FINISH         | Au        |

