



■ ELECTRICAL SPECIFICATION

PARAMETER		VALUE
Frequency Range		6.000 ~ 175.000 MHz
Operating Temperature Range		-20°C ~ +70°C Standard -40°C ~ +85°C Extended
Frequency Stability		±25 ppm, ±50 ppm, ±100ppm
Aging, 1 <sup>st</sup> Year		±5 ppm max
Storage Temperature Range		-55°C to +125°C
Supply Voltage (Vcc)		2.5 V, 3.3 V
Supply Current		40 mA max
Output LVPECL	Symmetry	40% to 60% at 50% Vdd (45% to 55% Available)
	Rise / Fall Time	0.4 ns max at 10% to 90% Vdd
	Logic "0" Level	V <sub>OL</sub> =0.9V min
	Logic "1" Level	V <sub>OH</sub> =1.6 max
	Load	50 Ω (to V <sub>CC</sub> -2 V)
Enable / Disable Function		Pin 1: High or Open / Output enabled (Pins 4 & 5) Pin 1: Low / Output disabled (High impedance)
Phase Noise		-153dBc/Hz, Typical @ 100kHz offset
RMS Phase Jitter (12kHz ~ 20 MHz)		0.5 ps max

■ **MECHANICAL SPECIFICATION**

**OUTLINE TOLERANCE  
IF NOT SPECIFIED:  
±0.015" / 0.4mm**

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

**Recommended Soldering Pattern**

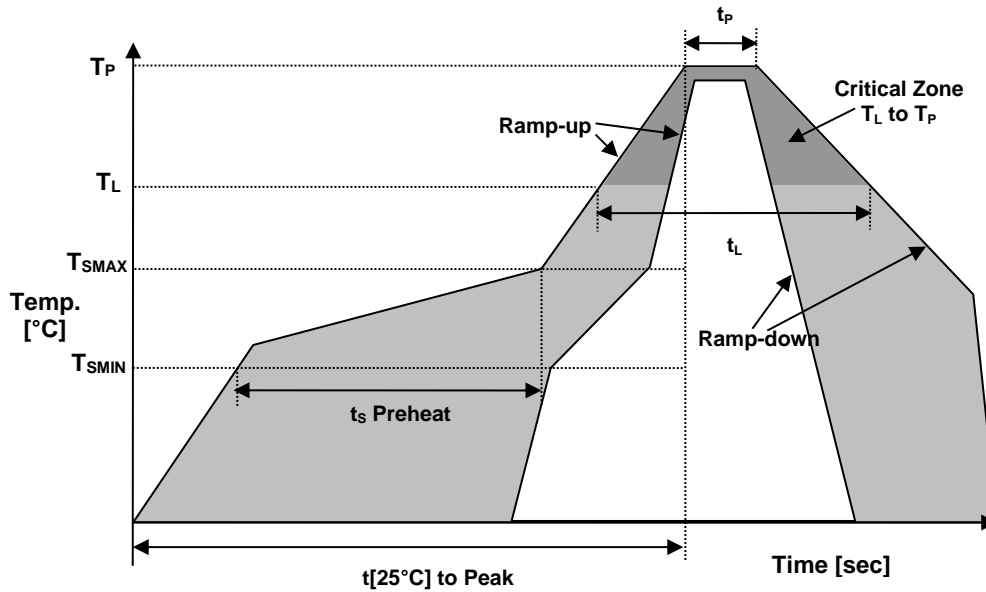
■ **PART NUMBERING SYSTEM**

TYPE	SERIES	FREQUENCY (MHz)	SUPPLY VOLTAGE (Vcc)	STABILITY (ppm)	TEMPERATURE RANGE (°C)	SYMMETRY (Duty Cycle)	TAPE & REEL
Clock Oscillator CL	2520	6.000 ~ 175.000 MHz	2.5: Vcc=2.5 3.3: Vcc=3.3	25: ±25 ppm 30: ±30 ppm 50: ±50 ppm	blank: -20°C to +70°C X: -40°C to +85°C	blank: 40 to 60% T: 45 to 55%	TR

**EXAMPLE: CL2520-40.000-3.3-25-X-T-TR**

Surface Mount CL2520 LVDS Oscillator, 2.5 x 2.0 mm, 40.000 MHz, 3.3 VDC Supply Voltage, ±25 ppm 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°C
Temperature Max Preheat	$T_{SMAX}$	200°C
Time ( $T_{SMIN}$ to $T_{SMAX}$ )	$t_s$	60-180 sec.
Temperature	$T_L$	217°C
Peak Temperature	$T_P$	260°C
Ramp-up rate	$R_{UP}$	3°C/sec max.
Ramp-down rate	$R_{DOWN}$	6°C/sec max.
Time within 5°C of Peak Temperature	$t_p$	10 sec.
Time $t[25^\circ\text{C}]$ to Peak Temperature	$t[25^\circ\text{C}]$ 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

