SERIES RCL2520

RoHS Compliant

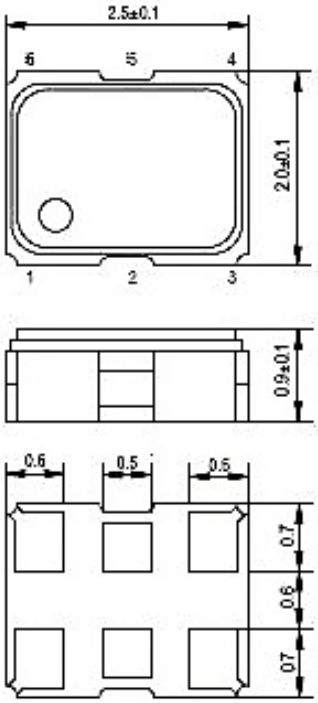
❖ ELECTRICAL SPECIFICATION

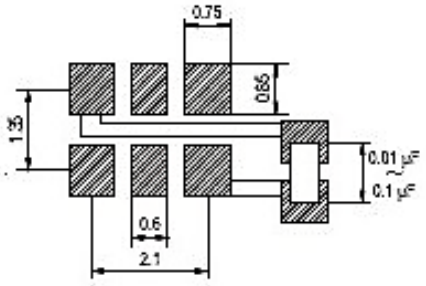
PARAMETER		VALUE
Frequency Range		6.000 ~ 175.000 MHz
Operating Temperature Range		-20°C ~ +70°C Standard -40°C ~ +85˚C Extended
Frequency Stability		±25 ppm, ±50 ppm, ±100ppm
Aging, 1st Year		±5 ppm max
Storage Temperature Range		-55°C to +125°C
Supply Voltage (Vcc)		2.5 V, 3.3 V
Supply Current		40 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_{OL}=0.9V min
	Logic “1” Level	V_{OH}=1.6 max
	Load	50 Ω (to V_{CC}-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

LVDS SURFACE MOUNT CLOCK OSCILLATOR

SERIES RCL2520

❖ MECHANICAL SPECIFICATION





Recommended Soldering Pattern

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

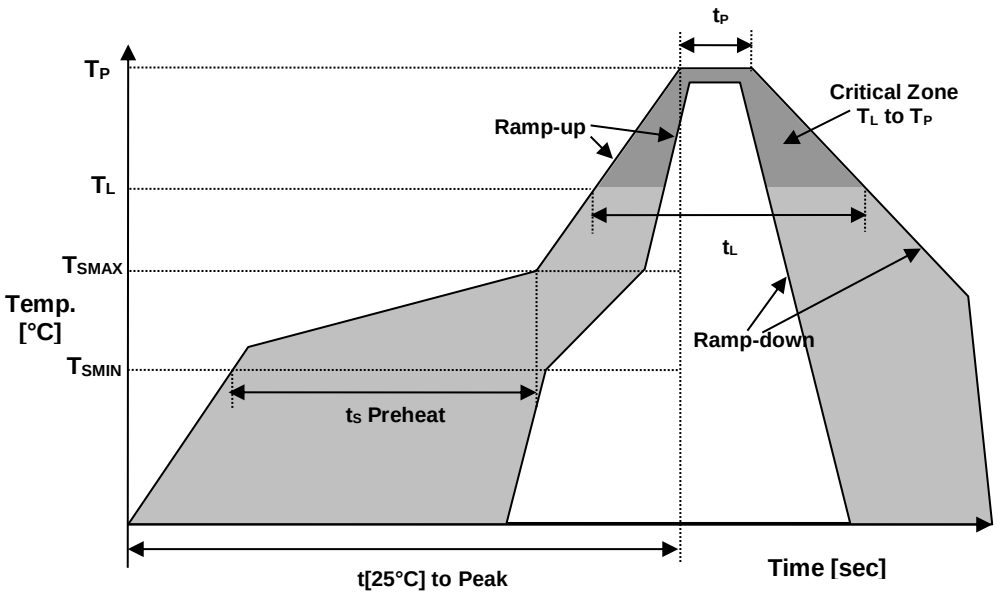
PIN FUNCTIONS:
[1] ENABLE / DISABLE
[2] NC
[3] GND
[4] OUTPUT
[5] COMPLEMENTARY OUTPUT
[6] VCC

❖ PART NUMBERING SYSTEM

TYPE	SERIES	-	FREQUENCY (MHz)	-	SUPPLY VOLTAGE (Vcc)	-	STABILITY (ppm)	-	TEMPERATURE RANGE (˚C)	-	SYMMETRY (Duty Cycle)	-	TAPE & REEL
Clock Oscillator RCL	**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: RCL2520-40.000-3.3-25-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°C] to Peak Temperature	t[25°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

RoHS Compliant

April 2017