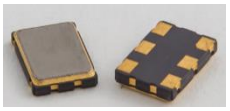


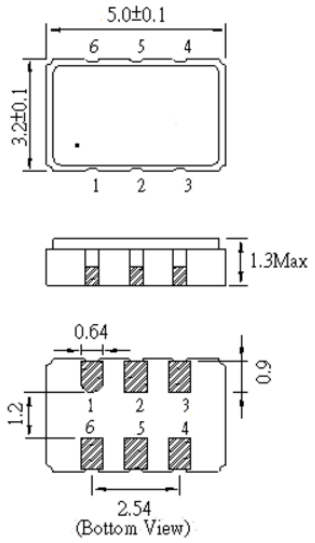
LVDS CLOCK OSCILLATOR

CL5032-125.000-3.3-25-X-T-TR

ELECTRICAL SPECIFICATION

PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT
Nominal Frequency	fo	Ta= +25°C	125.000	MHz
Supply Voltage	V_{CC}	Vcc ±10%	3.3	VDC
Supply Current, max	I_S	Ta= +25°C	40	mA
Operating Temperature Range	Ta		-40 ~ +85	°C
Storage Temperature Range	$T_{(stg)}$	Absolute max	-55 ~ +125	°C
Output Logic Type			LVDS	
Freq. Stability, max.	Δf/fo	Inclusive of 25°C Tolerance and Changes due to Operating Temperature	±25	ppm
Aging, max		Per year at +25°C	±3	ppm
Output Voltage	V_{OH}	V_{OH}, max, RL=100 Ω, CE≥Vcc-0.3V, OUT/OUTN	1.6	VDC
	V_{OL}	V_{OL}, min, RL=100 Ω, CE≥Vcc-0.3V, OUT/OUTN	0.9	VDC
Differential Voltage, min/max	$V_{OD}/V_{OD'}$	RL=100 Ω, CE≥Vcc-0.3V, OUT/OUTN Differential	247 / 454	mV
Differential Voltage Deviation, max	ΔV_{OD}		50	mV
Offset Voltage, min/max	V_{OS}	RL=100 Ω (Between OUT/OUTN), CE=Open	1.125 / 1.375	V
Offset Deviation, max	ΔV_{OS}		50	mV
Output Swing, min	V_{opp}		0.25	V
Output Load		Connected between Out and Complementary Out	100	Ω
Enable / Disable Function	E/D	Pin 1: N.C. (Open) or High (0.7 x Vcc)	Pin 4 & 5 – Oscillation (Enabled)	
		Pin 1: Low (0.3 x Vcc)	Pin 4 & 5 – High Impedance (Disabled)	
Symmetry (Duty Cycle)	DC	@50% Waveform	45 ~ 55	%
Rise Time / Fall Time, max	tr / tf	@20% to 80% Waveform	0.4	ns
Start-up time, max	t_s		2	ms
RMS Phase Jitter, max	J	1σ, 12kHz < F_j < 20MHz	0.3	ps
Peak-Peak Period Jitter, max			40	ps

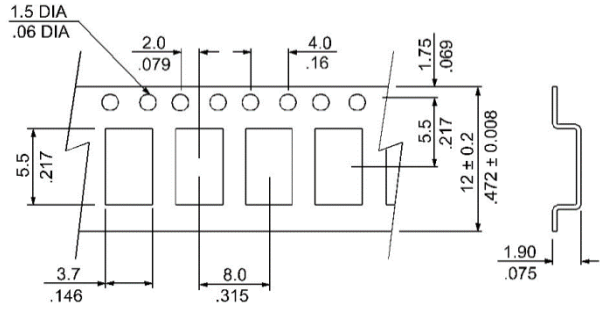
MECHANICAL SPECIFICATION



Pin Connections
1 – Enable / Disable
2 – NC
3 – Ground
4 – Output
5 – Complimentary Output
6 – Vcc

NOTE: A capacitor of 0.01 µF between Vcc and Ground is recommended

CARRIER TAPE DIMENSIONS

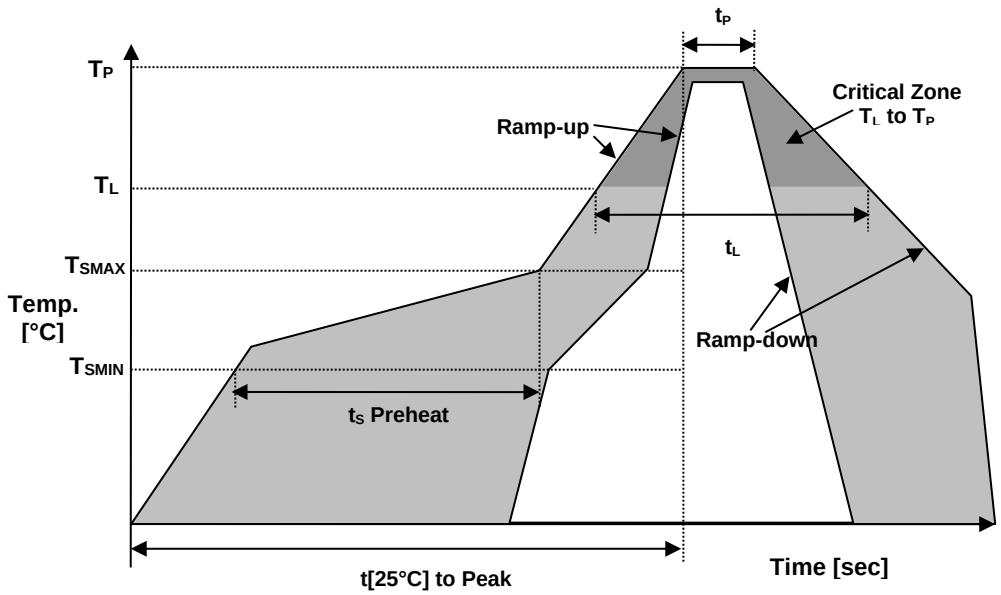


NOTE: REFER TO EIA-481 FOR DIMENSIONS NOT LISTED

PACKAGING

178 mm REEL DIAMETER
12 mm TAPE WIDTH, 8 mm PITCH
QUANTITY: 1000 PIECES PER REEL

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
RoHS	Compliant
REACH-SVHC	Compliant
HALOGEN-FREE	Compliant
TERMINATION FINISH	Au

MARKING

Rx125.0T
•3AEyw

x – 1 or 2 digits as Internal Production ID code
y – Year code
w – Week code

YEAR CODE	
Year	Code
2018	8
2019	9
2020	0
2021	1
2022	2
2023	3
2024	4
2025	5
2026	6
2027	7
2028	8
2029	9

ALPHA WEEK CODE TABLE					
Week	Code	Week	Code	Week	Code
1	a	19	s	37	K
2	b	20	t	38	L
3	c	21	u	39	M
4	d	22	v	40	N
5	e	23	w	41	O
6	f	24	x	42	P
7	g	25	y	43	Q
8	h	26	z	44	R
9	i	27	A	45	S
10	j	28	B	46	T
11	k	29	C	47	U
12	l	30	D	48	V
13	m	31	E	49	W
14	n	32	F	50	X
15	o	33	G	51	Y
16	p	34	H	52	Z
17	q	35	I		
18	r	36	J		

APPROVAL

RALTRON	
DRAWN BY:	AR, January 18, 2019
APPROVED BY:	JI, January 18, 2019
REVISION:	A, Initial Release B, March 08, 2021, Updated the Current Revision Levels C, Updated supply current, stability, rise/fall time, phase jitter, marking, added start-up time and jitter p-p by XLiu, July 11, 2024