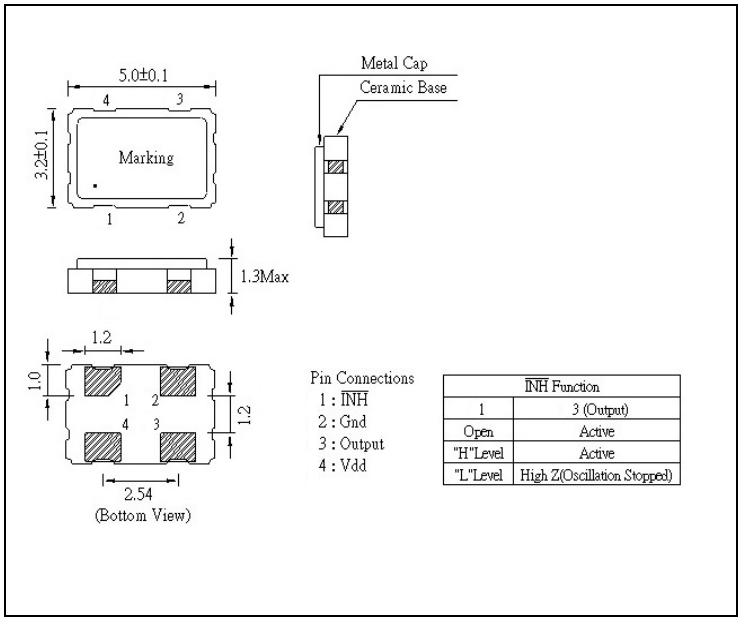
COM2305-50.000-EXT-T-TR

ELECTRICAL SPECIFICATION

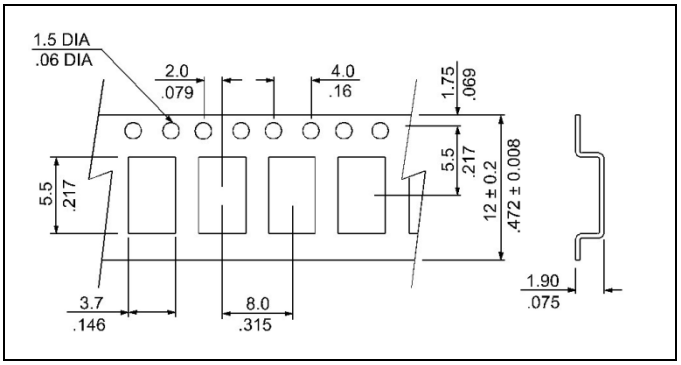
PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT
Nominal Frequency	fo	Ta=25°C	50.000	MHz
Supply Voltage Range	V_{CC}	V_{CC} ±10%	3.3	VDC
Supply Current, max	I_S	Ta=25°C	15	mA
Operating Temperature Range	Ta		-40 ~ +85	°C
Storage Temperature Range	$T_{(stg)}$	Absolute max	-55 ~ +125	°C
Frequency Stability, max	Δf/fo	Inclusive of 25°C Tolerance and Changes due to Operating Temperature, Supply Voltage, Load and First year Aging	±50	ppm
Output Voltage	V_{OL}	Logic "0" Level	0.1 x Vcc	VDC
	V_{OH}	Logic "1" Level	0.9 x Vcc	VDC
Output Load		CMOS Output	15	pF
Enable / Disable Function	E/D	Pin 1: Open or High, Pin 3 – Oscillation (Enabled), min	0.7 x Vcc	V
		Pin 1: Low, Pin 3 – High Impedance (Disabled), max	0.3 x Vcc	V
Symmetry (Duty Cycle)	DC	@50% Vdd	45 ~ 55	%
Rise Time and Fall Time, max	tr / tf	@10% to 90% Vdd	3	ns
Stand-by Current, max	$I_{(std-by)}$		10	µA
Start-up Time, max	T_S		2	ms
Phase Jitter, RMS, max	J	1σ, 12kHz < Fj < 20MHz	1	ps

MECHANICAL SPECIFICATION



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

CARRIER TAPE DIMENSIONS



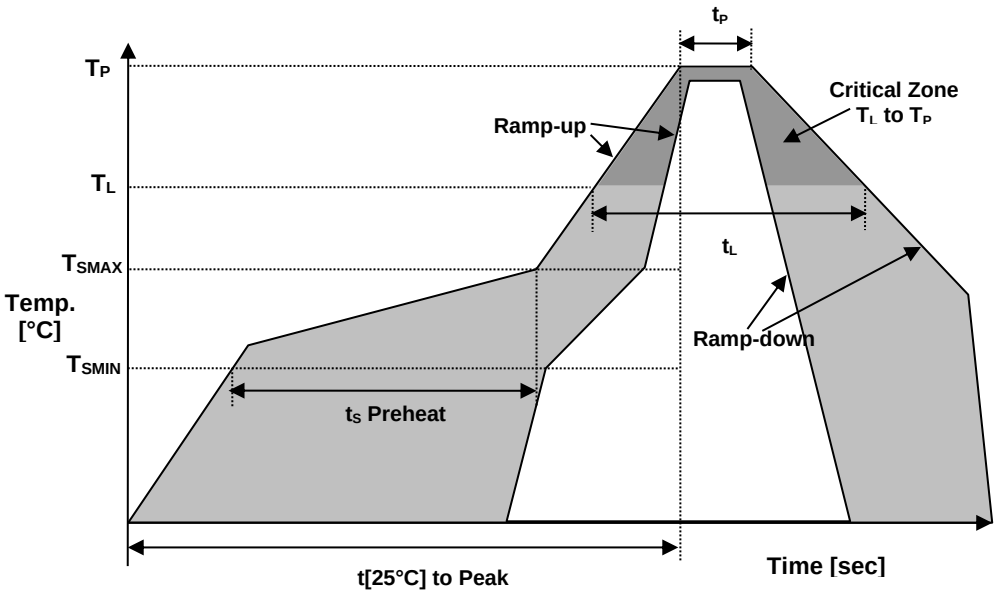
NOTE: REFER TO EIA-481 FOR DIMENSIONS NOT LISTED

PACKAGING

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

IN ACCORDANCE WITH EIA-481

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

Rx50.00T
•3BEyww

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:	CP, May 26, 2015
APPROVED BY:	CP, May 26, 2015
REVISION:	A, Initial Release B, AR September 14, 2021, Updated the Current Revision Levels C, CP June 12, 2023, Updated to the Current Specs Levels D, Updated to current spec levels by XLiu, August 6, 2024