

CLOCK OSCILLATOR

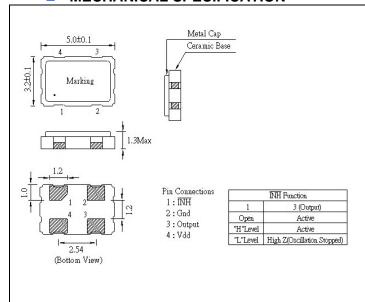
Page 1 of 3

COM23025-50.000-EXT-T-TR

ELECTRICAL SPECIFICATION

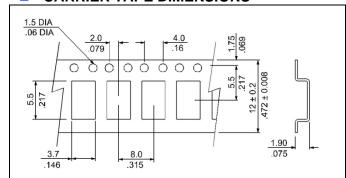
PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT
Nominal Frequency	fo	Ta=25°C	50.000	MHz
Supply Voltage Range	V _{cc}	V _{CC} ±10%	3.3	VDC
Supply Current, max	Is	Ta=25°C	15	mA
Operating Temperature Range	Та		-40 ~ +85	°C
Storage Temperature Range	T _(stg)	Absolute max	-55 ~ +125	°C
Frequency Stability, max	Δf/fo	Inclusive of 25°C Tolerance and Changes due to Operating Temperature	±25	ppm
Aging, max		Per year at +25°C	±3	ppm
	Vol	Logic "0" Level	0.1 x Vcc	VDC
Output Voltage	Voн	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
Ellable / Disable Fullction	E/D	Pin 1: Low, Pin 3 – High Impedance (Disabled), max		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	Ts		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

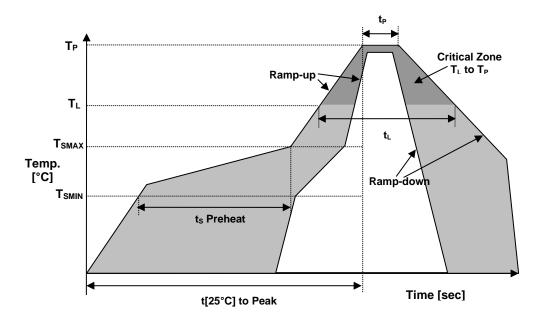


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Page 2 of 3

COM23025-50.000-EXT-T-TR

REFLOW PROFILE



	Reflow profile	
Temperature Min Preheat	T _{SMIN}	150°C
Temperature Max Preheat	T _{SMAX}	200°C
Time (T _{SMIN} to T _{SMAX})	ts	60-180 sec.
Temperature	TL	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	tı	60-150 sec.

ENVIRONMENTAL

PARAMETER	VALUE
MOISTURE SENSITIVITY LEVEL	1
RoHS	Compliant
REACH-SVHC	Compliant
HALOGEN-FREE	Compliant
TERMINATION FINISH	Au





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Page 3 of 3

COM23025-50.000-EXT-T-TR

MARKING

Rx50.00T •3AEyww

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	а	19	S	37	K
2	b	20	t	38	L
3	С	21	u	39	М
4	d	22	V	40	N
5	е	23	W	41	0
6	f	24	Х	42	Р
7	g	25	у	43	Q
8	h	26	z	44	R
9	i	27	Α	45	S
10	j	28	В	46	T
11	k	29	С	47	U
12	1	30	D	48	V
13	m	31	E	49	W
14	n	32	F	50	Χ
15	0	33	G	51	Υ
16	р	34	Н	52	Z
17	q	35	I		
18	r	36	J		

APPROVAL

	RALTRON
DRAWN BY:	KJackson, January 19, 2015
APPROVED BY:	KJackson, January 19, 2015
REVISION:	A, Initial Release
	B, Updated to current spec levels KJ 6/13/19
	C, Updated marking to current spec levels by XLiu, December 10, 2020
	D, Updated supply current, stability, rise/fall time, start-up time and jitter
	by XLiu, August 7, 2024

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