

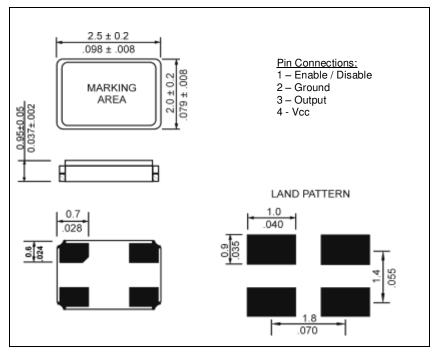
CLOCK OSCILLATOR

CO2520-50.000-3.3-50-X-TR

ELECTRICAL SPECIFICATION

PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT
Nominal Frequency	fo	Ta=25°C	50.000	MHz
Supply voltage range	V _{CC}		3.3	VDC
Supply current, max	Is	Ta=25°C	15	mA
Operating temperature	Та		-40 ~ +85	°C
Storage temperature	T _(stg)	Absolute max	-55 ~ +125	°C
Frequency Tolerance	∆f/fo	Inclusive of 25°C Tolerance and Changes due to Operating Temperature, Supply Voltage, Load, Aging, Shock and Vibration	±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
	E/D	Pin 1: N.C. (Open) or High	Pin 3 – Oscillation (Enabled)	
Enable / Disable Function		Pin 1: Low	Pin 3 – High Impedance (Disabled)	
Symmetry (Duty Cycle)	DC	@50% Vdd	40 to 60	%
Rise Time and Fall Time, Max	tr / tf	@10% to 90% Vdd	2	ns
Stand-by Current	I _(std)		10	μA
Start up time, Max	ts	$V_{OUT} \ge 90\% V_{P-P}$	10	ms

MECHANICAL SPECIFICATION





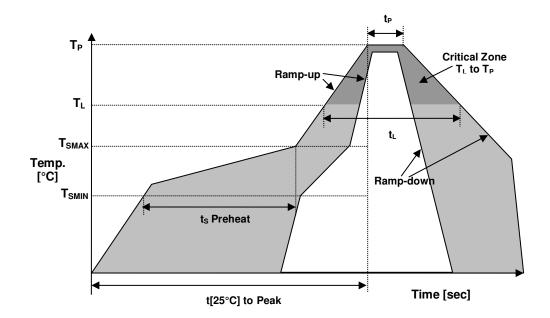
NOTE: A capacitor of 0.01 μF between Vcc and Ground is recommended



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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	TP	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	tL	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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CO2520-50.000-3.3-50-X-TR

• MARKING

Rx50.0 •33BEyw

- x Internal Production ID code
- y Year code
- w Week code

YEAR CODE		
Year	Code	
2011	1	
2012	2	
2013	3	
2014	4	
2015	5	
2016	6	
2017	7	
2018	8	
2019	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	Ν
5	е	23	w	41	0
6	f	24	х	42	Р
7	g	25	у	43	Q
8	ĥ	26	Z	44	R
9	i	27	Α	45	S
10	j	28	В	46	Т
11	k	29	С	47	U
12	I	30	D	48	V
13	m	31	E	49	W
14	n	32	F	50	Х
15	0	33	G	51	Y
16	р	34	Н	52	Z
17	q	35	Ι		
18	r	36	J		

APPROVAL

RALTRON		
DRAWN BY:	KJackson, May 10, 2018	
APPROVED BY:	Jlvens, May 10, 2018	
REVISION:	A, Initial Release	

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