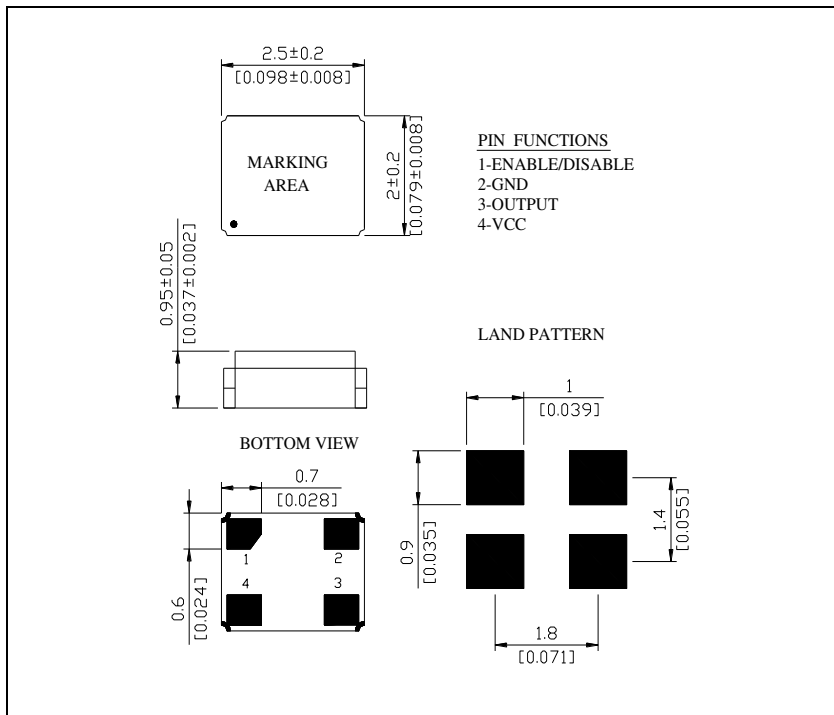


ELECTRICAL SPECIFICATION

PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT
Nominal Frequency	f_o	$T_a=25^{\circ}\text{C}$	33.333	MHz
Supply voltage range	V_{CC}	---	1.8	VDC
Supply current, max	I_s	$T_a=25^{\circ}\text{C}$	2.5	mA
Operating temperature	T_a	---	-40 ~ +85	$^{\circ}\text{C}$
Storage temperature	$T_{(stg)}$	Absolute max	-40 ~ +85	$^{\circ}\text{C}$
Frequency Tolerance	$\Delta f/f_o$	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	$0.1 \times V_{CC}$	VDC
	V_{OH}	Logic "1" Level	$0.9 \times V_{CC}$	VDC
Output Load	---	CMOS Output	15	pF
Enable / Disable Function	E/D	Pin 1: N.C. (Open) or High	Pin 3 – Oscillation (Enabled)	
		Pin 1: Low	Pin 3 – High Impedance (Disabled)	
Symmetry (Duty Cycle)	DC	@50% Vdd	45 to 55	%
Rise Time and Fall Time, Max	t_r / t_f	@20% to 80% Vdd	2.2	ns
Jitter TIE, max*			50	ps
Stand-by Current	$I_{(std)}$	---	10	μA
Start up time, Max	t_s	$V_{OUT} \geq 90\% V_{P-P}$	10	ms

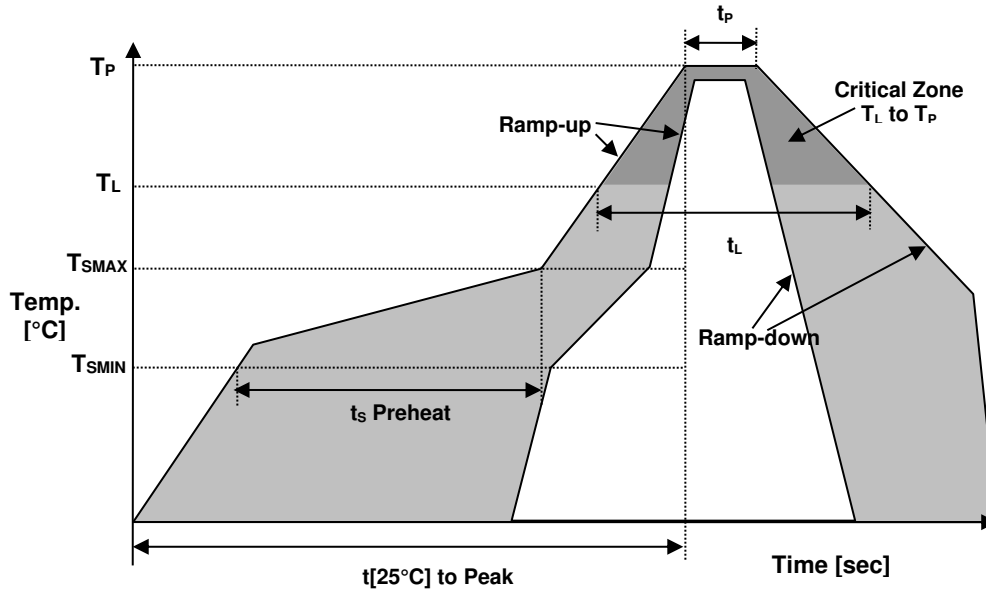
*Note. TIE, also known as accumulated jitter is the deviation of a clock period from the ideal clock period measured over a significant number of cycles. It includes jitter contribution due to high and low jitter modulation frequencies. This specification of jitter is commonly used in SONET and Optical Transport Networking (OTN) equipment

MECHANICAL SPECIFICATION



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

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 $t_{[25^\circ C]}$ to Peak Temperature	$t_{[25^\circ C] \text{ to Peak}}$	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





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CLOCK OSCILLATOR

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CO2520-33.333-1.8-50-EXT-T-TR-NS2

MARKING

Rx33.3
•18BEyw

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

YEAR CODE	
Year	Code
2015	5
2016	6
2017	7
2018	8
2019	9
2020	0
2021	1
2022	2
2023	3

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, October 22, 2020
APPROVED BY:	Jl, October 22, 2020
REVISION:	A, Initial Release
	B, AR, December 12, 2020 Updated the Current Revision Levels

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