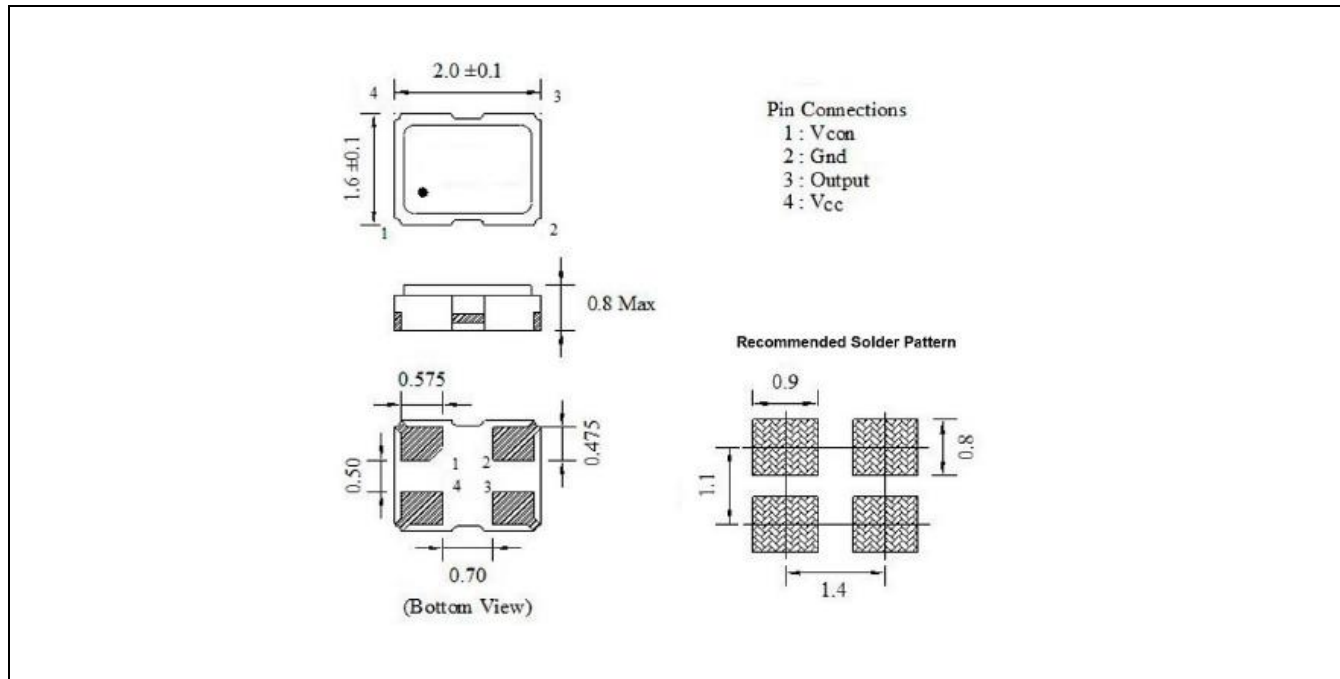


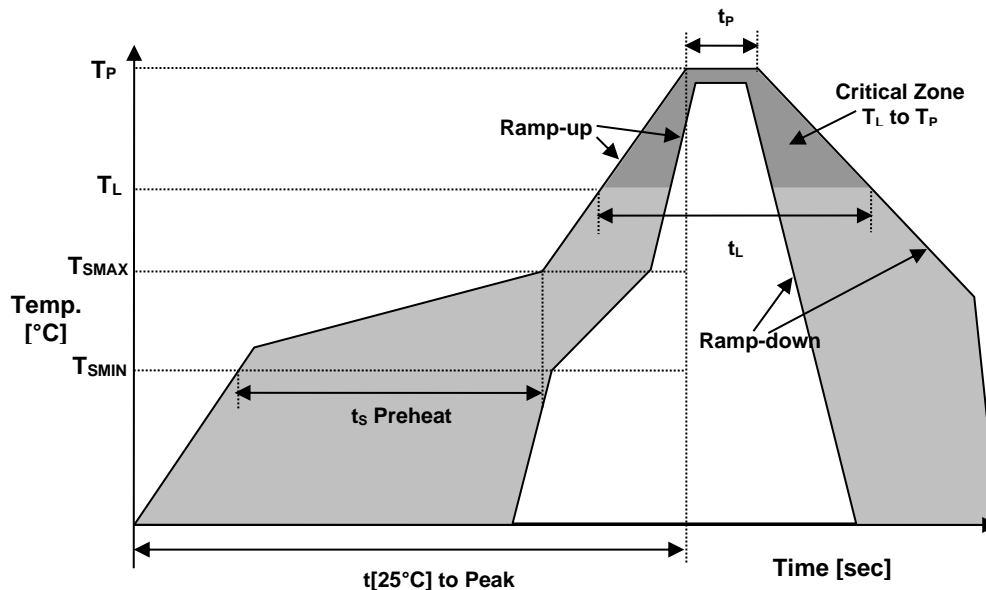
#### ELECTRICAL SPECIFICATION

PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT
Nominal Frequency	$f_o$	$V_{CC} \pm 5\%$ @ $V_c=0.9$ V	38.400	MHz
Supply Voltage, nom.	$V_{CC}$	$V_{CC} \pm 5\%$	3.3	Vdc
Supply Current, max	$I_s$	$V_{CC} \pm 5\%$	1.7	mA
Operating Temperature Range	$T_a$		-20 ~ +70	°C
Storage Temperature Range	$T(stg)$	Absolute max	-55 ~ +125	°C
Frequency Stability, max				
vs. Temperature	$\Delta f/f_o(T_a)$	Reference to +25°C ±2°C (-20 to +70°C)	±0.5	ppm
vs. Supply Voltage	$\Delta f/f_v$	$V_{CC} \pm 5\%$	±0.2	ppm
vs. Load	$\Delta f/f_L$	Load ±10%	±0.2	ppm
vs. Aging	$\Delta f/f_o(\text{year})$	Per Year at +25°C ± 2°C	±1.0	ppm
Initial Frequency Calibration, max	$f_c$	Measured at 25°C, Reference to $f_o$ , $V_c=0.9$ Vdc (after 2 times reflow)	±2.0	ppm
Output Level, Clipped Sine Wave	-	10 kΩ // 10 pF ±10%	0.8	$V_{P-P}$
Voltage Control Range	$V_c$	$V_c = 0.1$ Vdc to 1.7 Vdc	±8 to ±13	ppm
Start-up Time	$t_s$	$T_a=25^\circ\text{C}$ , $V_{out} \geq 90\%$ $V_{p-p}$	5.0	ms
Phase Noise	$\mathcal{L}(\Delta f)$	@1kHz	-130	dBc/Hz

#### MECHANICAL SPECIFICATION



### REFLOW PROFILE



Reflow profile		
Temperature Min Preheat	T <sub>SMIN</sub>	150°C
Temperature Max Preheat	T <sub>SMAX</sub>	200°C
Time (T <sub>SMIN</sub> to T <sub>SMAX</sub> )	t <sub>s</sub>	60-180 sec.
Temperature	T <sub>L</sub>	217°C
Peak Temperature	T <sub>P</sub>	260°C
Ramp-up rate	R <sub>UP</sub>	3°C/sec max.
Ramp-down rate	R <sub>DOWN</sub>	6°C/sec max.
Time within 5°C of Peak Temperature	t <sub>p</sub>	10 sec.
Time t[25°C] to Peak Temperature	t[25°C] to Peak	480 sec.
Time	t <sub>L</sub>	60-150 sec.

### ENVIRONMENTAL

PARAMETER	VALUE
MOISTURE SENSITIVITY LEVEL	1
REACH-SVHC	Compliant
RoHS2	Compliant
TERMINATION FINISH	Au



### MARKING

Rx384  
•B3yw

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	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		

### APPROVALS

RALTRON	
Created by, date:	F. Parra, 11 December 2015
Eng. approval, date:	F. Parra, 11 December 2015
Revision:	A, Initial Release B, CP, February 28, 2023 Updated to the current spec levels

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