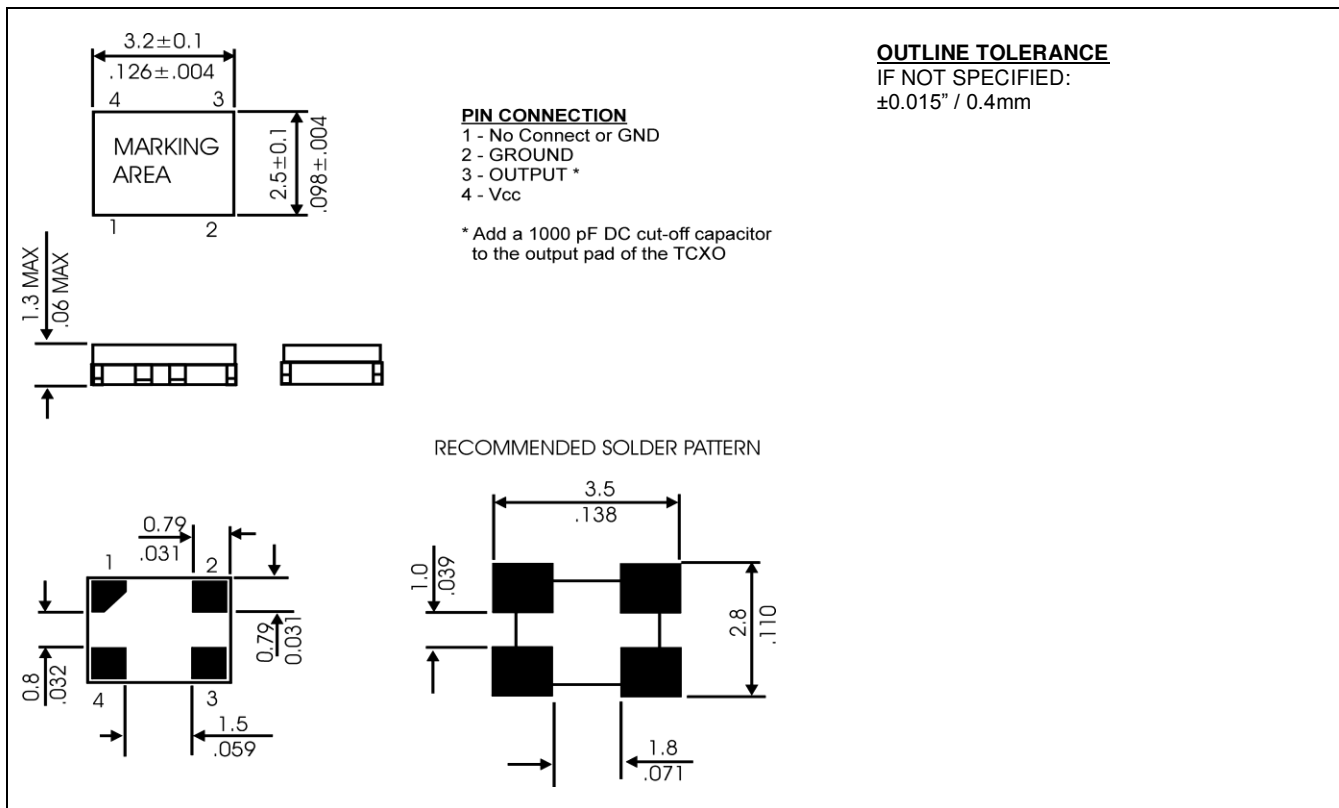


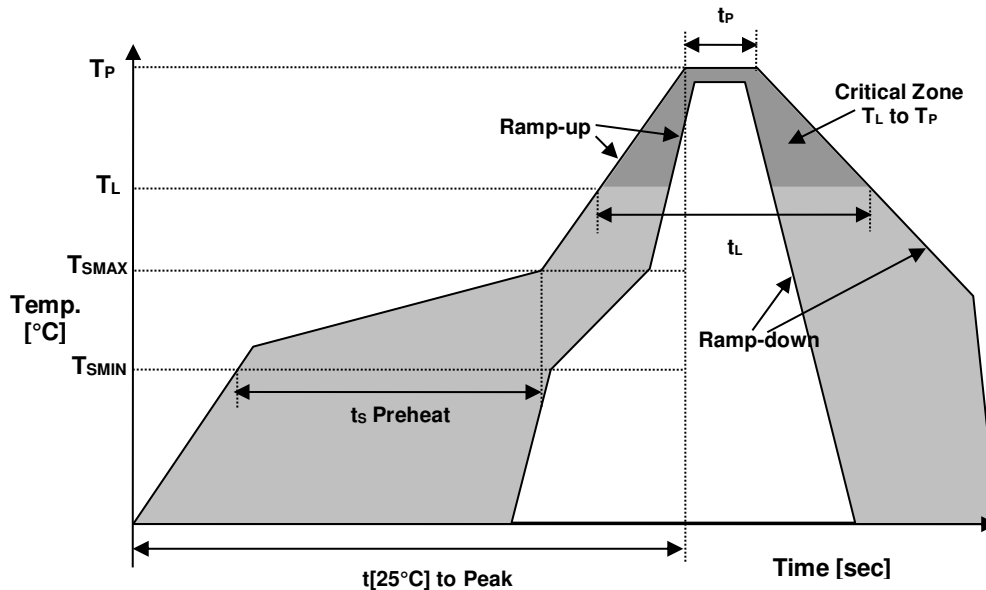
### ELECTRICAL SPECIFICATION

PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT
Nominal Frequency	$f_o$	$T_a=25^{\circ}\text{C}$	32.000	MHz
Supply voltage range	$V_{CC}$	---	1.8	VDC
Supply current, max	$I_s$	$T_a=25^{\circ}\text{C}$	2.0	mA
Operating temperature	$T_a$	---	-40 ~ +85	$^{\circ}\text{C}$
Storage temperature	$T(\text{stg})$	Absolute max	-40 ~ +85	$^{\circ}\text{C}$
Frequency Stability				
vs. Temperature	$\Delta f/f_o(T_a)$	Reference to +25 $^{\circ}\text{C}$ over Temperature Range	$\pm 1.5$	ppm
vs. Supply Voltage	$\Delta f/f_v$	$V_{CC}=3.0 \pm 0.15 \text{ V}$	$\pm 0.2$	ppm
vs. Load	$\Delta f/f_L$	Load $\pm 10\%$ , $V_{CC}=3.0 \pm 5\%$	$\pm 0.2$	ppm
vs. Aging Max	$\Delta f/f_o(\text{year})$	Per Year at +25 $^{\circ}\text{C} \pm 2^{\circ}\text{C}$	$\pm 1.0$	ppm
Initial Frequency Calibration, Max	$f_c$	Measured at 25 $^{\circ}\text{C}$ , Reference to $f_o$	$\pm 1.0$	ppm
Output Level, Clipped Sine Wave, Minimum	-	10K Ohms // 10 pF $\pm 10\%$	0.8	V <sub>P-P</sub>
Start up time, Max	$t_s$	$V_{OUT} \geq 90\% V_{P-P}$	2	ms
Phase noise @ freq. offset, typical.	$\mathcal{L}(\Delta f)$	$\Delta f=1\text{kHz}$	-135	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
RoHS2	Compliant
REACH-SVHC	Compliant
HALOGEN-FREE	Compliant
TERMINATION FINISH	Au



• MARKING

Rxx32.00

• CD31yw

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		

• APPROVAL

RALTRON	
DRAWN BY:	KJackson, July 20, 2017
APPROVED BY:	Jlvns, July 20, 2017
REVISION:	A, Initial Release

Raltron Electronics / RAMI Technology USA, LLC, including its affiliates, employees, agents and other persons acting on its behalf (collectively Raltron/RAMI Tech), disclaim any and all liability for any errors or inaccuracies contained in this data sheet. While Raltron/RAMI Tech has made every reasonable effort ensure the accuracy of all product information, specifications and data contained herein, Raltron/RAMI Tech does not guarantee that the information is accurate, reliable or current. The product information is provided only for reference purposes only and is subject to change, correction or revision, at any time without notice. Raltron/RAMI Tech does not assume any liability arising out of an application or use of any product described herein and disclaims any warranties expressed or implied. The user of products in such applications shall assume all risks of such use and will agree to hold Raltron/RAMI Tech, harmless against all damages.

Copyright © 2016, Raltron Electronics / RAMI Technology USA, LLC. All rights reserved. No part of this document may be reproduced in any form without the prior written permission of Raltron Electronics / RAMI Technology USA, LLC.