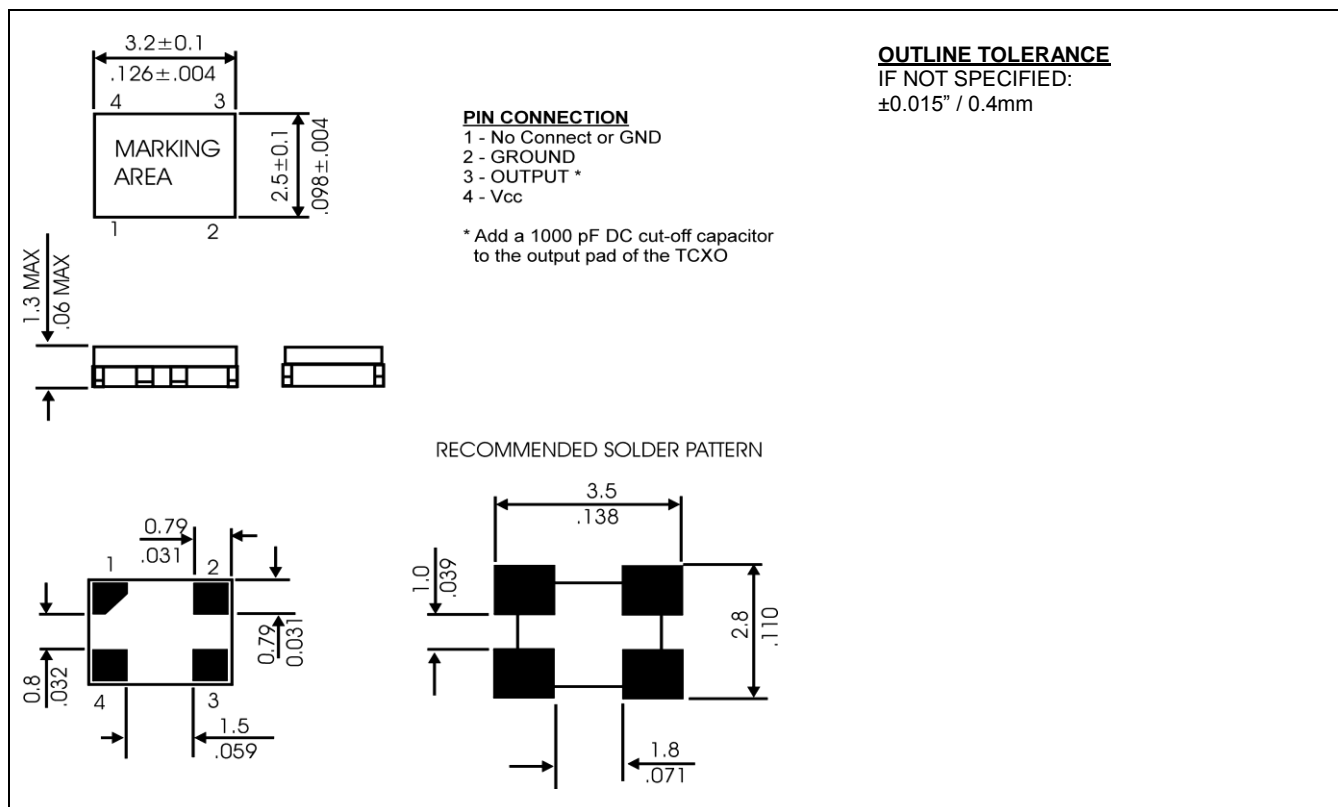


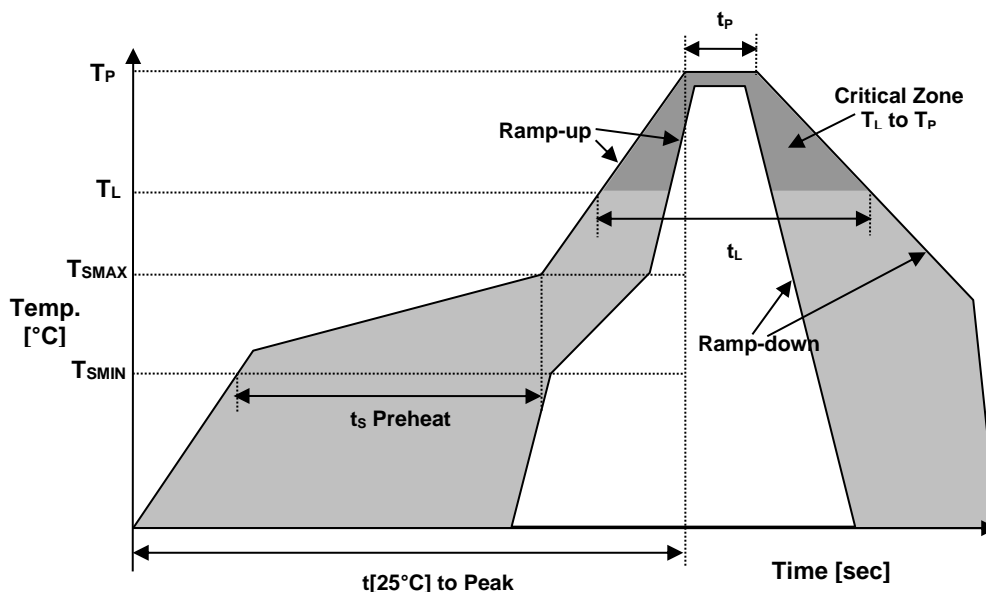
### ELECTRICAL SPECIFICATION

PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT	
Nominal Frequency	$f_0$	$T_a=25^\circ\text{C}$	10.000	MHz	
Supply voltage range	$V_{CC}$	---	3.3	VDC	
Supply current, max	$I_s$	$T_a=25^\circ\text{C}$	2.0	mA	
Operating temperature	$T_a$	---	-30 ~ +85	$^\circ\text{C}$	
Storage temperature	$T(\text{stg})$	Absolute max	-40 ~ +85	$^\circ\text{C}$	
Frequency Stability	vs. Temperature	$\Delta f/f_0(T_a)$	Reference to $+25^\circ\text{C}$ over Temperature Range	$\pm 0.5$	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	$\Delta f/f_0(\text{year})$	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 $f_0$	$\pm 2.0$	ppm	
Output Level, Clipped Sine Wave, Minimum	-	10K Ohms // 10 pF $\pm 10\%$	0.8	$V_{P-P}$	
Start up time, Max	$t_s$	$V_{OUT} \geq 90\% V_{P-P}$	2.0	ms	
Phase noise @ freq. offset, typical.	$\mathcal{E}(\Delta f)$	$\Delta f=100\text{ Hz}$	-110	dBc/Hz	
	$\mathcal{E}(\Delta f)$	$\Delta f=1\text{ kHz}$	-130	dBc/Hz	
	$\mathcal{E}(\Delta f)$	$\Delta f=10\text{ kHz}$	-140	dBc/Hz	
	$\mathcal{E}(\Delta f)$	$\Delta f=100\text{ kHz}$	-145	dBc/Hz	

### MECHANICAL SPECIFICATION



#### 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 $t_{[25^\circ\text{C}]}$ to Peak Temperature	$t_{[25^\circ\text{C}] \text{ to Peak}}$	480 sec.
Time	$t_L$	60-150 sec.

#### ENVIRONMENTAL

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



• MARKING

Rxx10.000  
 • AF333yw

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 5, 2017
APPROVED BY:	Jlvens, July 5, 2017
REVISION:	A, Initial Release

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