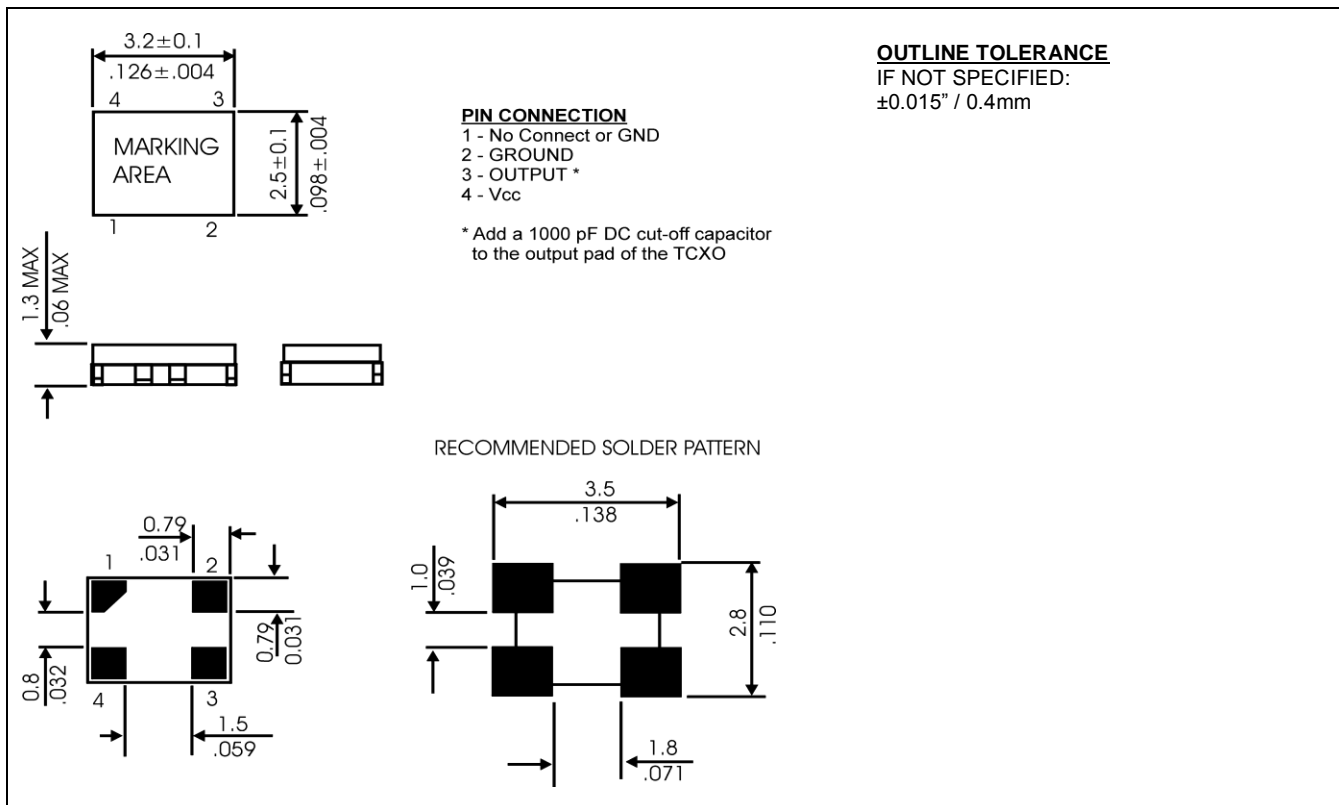


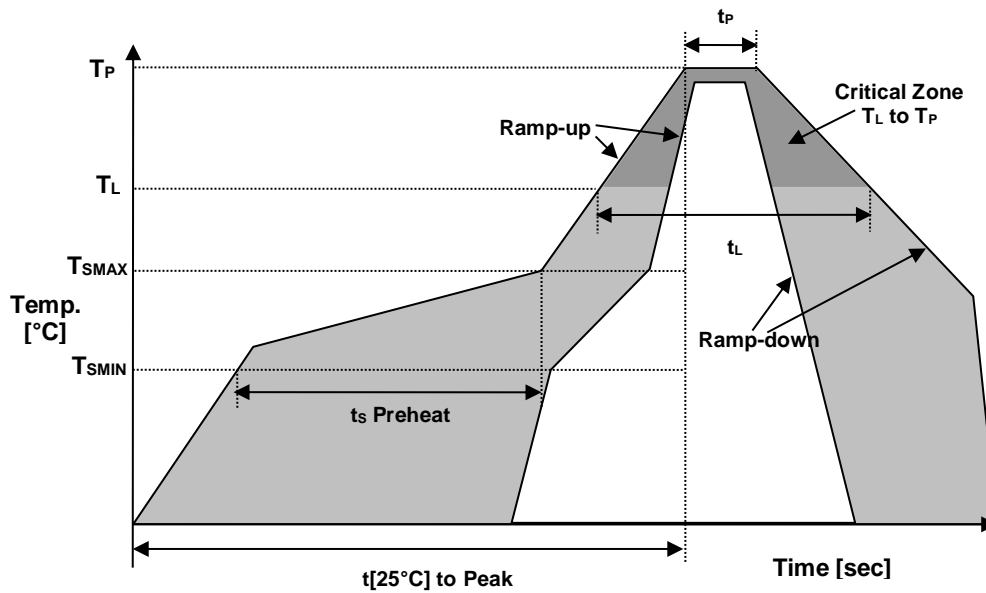
ELECTRICAL SPECIFICATION

PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT	
Nominal Frequency	f_0	$T_a=25^{\circ}\text{C}$	40.000	MHz	
Supply voltage range	V_{CC}	---	3.3	VDC	
Supply current, max	I_s	$T_a=25^{\circ}\text{C}$	1.5	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	± 0.5	ppm
	vs. Supply Voltage	$\Delta f/f_V$	$V_{CC}=3.0 \pm 0.15 \text{ V}$	± 0.2	ppm
	vs. Load	$\Delta f/f_L$	Load $\pm 10\%$, $V_{CC}=3.0 \pm 5\%$	± 0.2	ppm
	vs. Aging Max	$\Delta f/f_0(\text{year})$	Per Year at +25 $^{\circ}\text{C} \pm 2^{\circ}\text{C}$	± 1.0	ppm
Initial Frequency Calibration, Max	f_c	Measured at 25 $^{\circ}\text{C}$, Reference to f_0	± 2.0	ppm	
Output Level, Clipped Sine Wave, Minimum	-	10K Ohms // 10 pF $\pm 10\%$	0.8	V_{P-P}	
Harmonics	-	-	-8	dBc	
Start up time, Max	t_s	$V_{OUT} \geq 90\% V_{P-P}$	2.0	ms	
Phase noise @ freq. offset, typical.	$\mathcal{E}(\Delta f)$	$\Delta f=10 \text{ Hz}$	-83	dBc/Hz	
	$\mathcal{E}(\Delta f)$	$\Delta f=100 \text{ Hz}$	-108	dBc/Hz	
	$\mathcal{E}(\Delta f)$	$\Delta f=1 \text{ kHz}$	-135	dBc/Hz	
	$\mathcal{E}(\Delta f)$	$\Delta f=10 \text{ kHz}$	-148	dBc/Hz	
	$\mathcal{E}(\Delta f)$	$\Delta f=100 \text{ kHz}$	-149	dBc/Hz	
	$\mathcal{E}(\Delta f)$	$\Delta f=1 \text{ MHz}$	-150	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	$t[25^\circ\text{C}]$ 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

Rx40.00
•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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