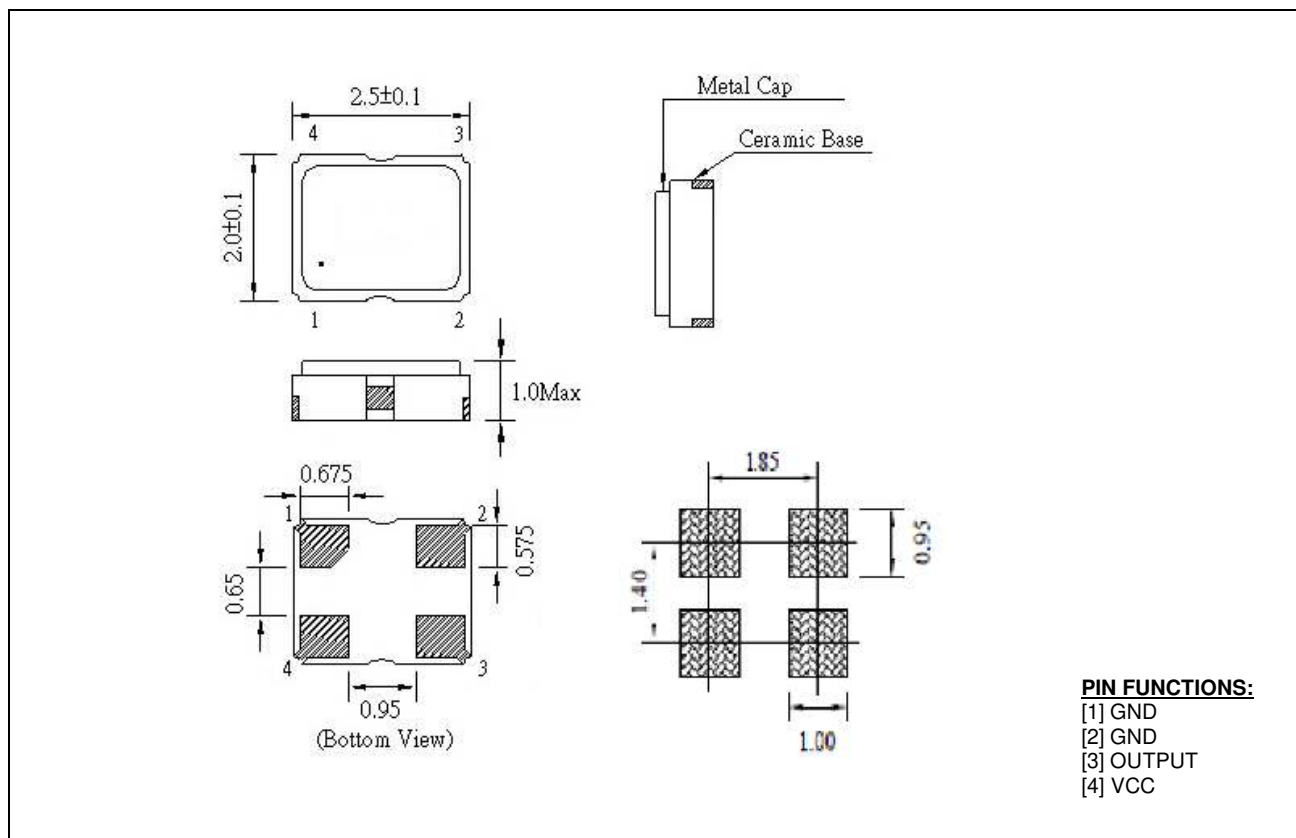


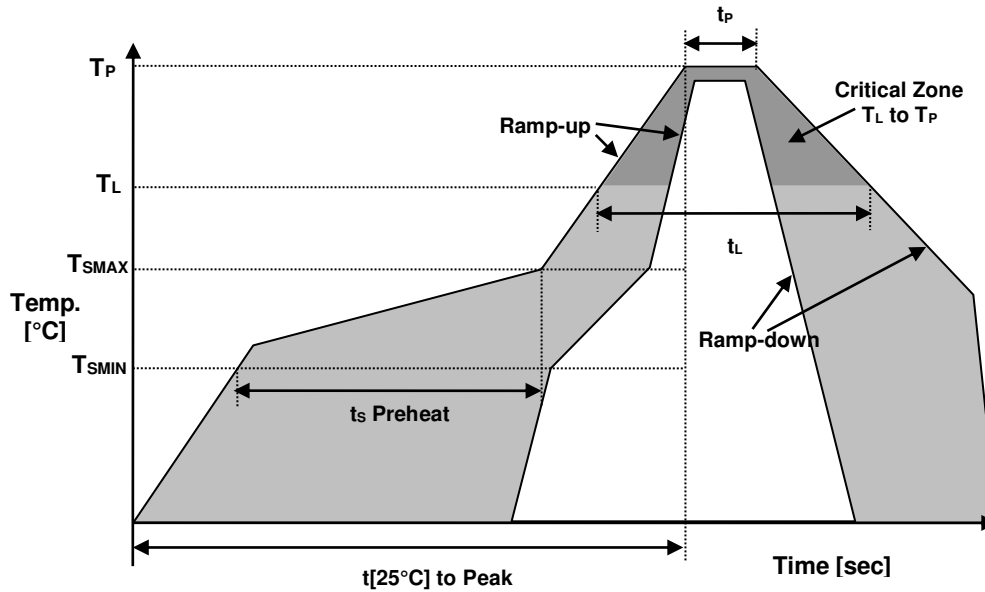
ELECTRICAL SPECIFICATION

PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT
Nominal Frequency	f_0	$T_a=25^\circ\text{C}$	26.000	MHz
Supply Voltage, nom	V_{CC}	$V_{CC} \pm 5\%$	1.8	VDC
Supply Current, max	I_S	$V_{CC} \pm 5\%$	2	mA
Operating Temperature Range	T_a		-40 ~ +85	$^\circ\text{C}$
Storage Temperature Range	$T(\text{stg})$	Absolute max	-40 ~ +85	$^\circ\text{C}$
Frequency Stability vs. Temperature max	$\Delta f/f_0(T_a)$	Reference to +25 $^\circ\text{C}$ over -30 $^\circ\text{C}$ ~ +85 $^\circ\text{C}$	± 0.5	ppm
vs. Supply Voltage max	$\Delta f/f_0(T_a)$	Reference to +25 $^\circ\text{C}$ over -40 $^\circ\text{C}$ ~ -30 $^\circ\text{C}$	± 4.0	ppm
vs. Load max	$\Delta f/f_V$	$V_{CC} \pm 5\%$	± 0.2	ppm
vs. Aging max	$\Delta f/f_L$	Load $\pm 10\%$	± 0.2	ppm
	$\Delta f/f_0(\text{year})$	First year at +25 $^\circ\text{C}$ $\pm 2^\circ\text{C}$	± 1.0	ppm
Initial Frequency Calibration, max	f_c	Measured at 25 $^\circ\text{C}$, after 2 times reflows	± 2.0	ppm
Output Level, Clipped Sine Wave, min		10k Ω // 10 pF $\pm 10\%$,	0.8	V_{P-P}
Harmonics, max			-8.0	dBc
Start-up Time, max	T_S	$V_{OUT} \geq 90\% V_{P-P}$	2.5	ms
Phase Noise @ Freq. Offset, max	$\mathcal{L}(\Delta f)$	$\Delta f = 1 \text{ kHz}$	-130	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
REACH	Compliant
RoHS	Compliant
TERMINATION FINISH	Au



MARKING

Rx26.00
• AD31yw

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
2024	4
2025	5

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:	FP, 21 January 2014
APPROVED BY:	FP, 21 January 2014
REVISION:	A, Initial Release B, FP, 12 June 2014 C, Updated to current spec levels by XLiu, March 23, 2020

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