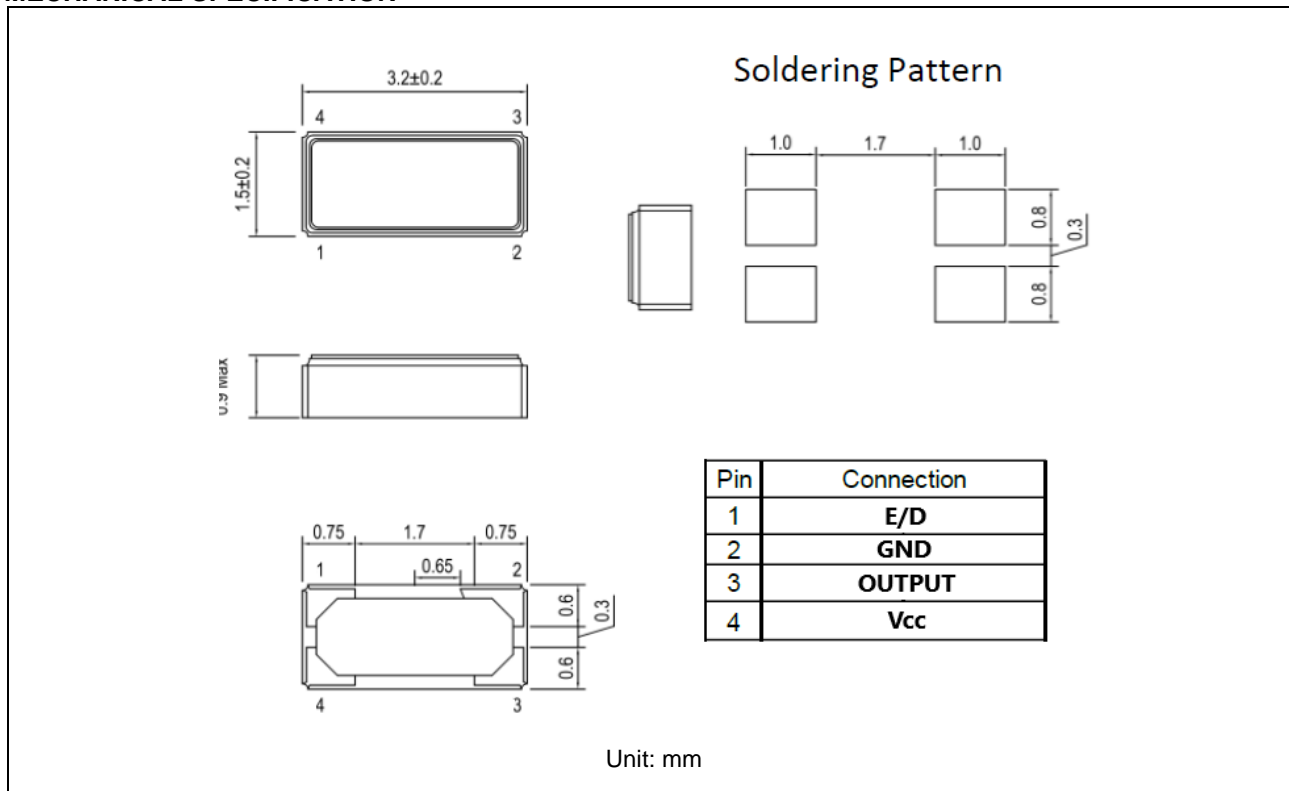


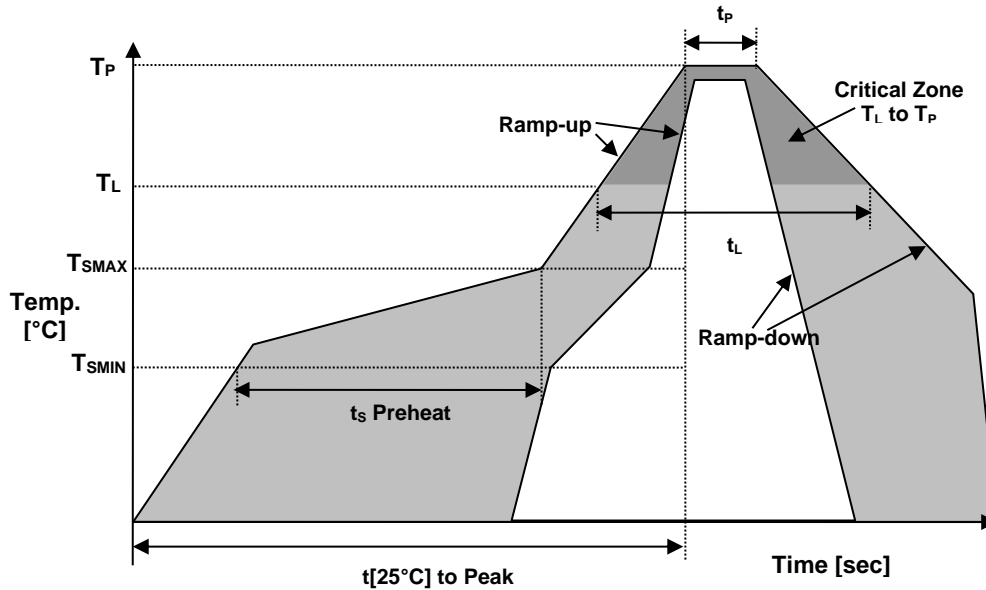
#### ELECTRICAL SPECIFICATION

PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT
Nominal Frequency	fo	Ta = 25°C	32.768	kHz
Supply Voltage, range	V <sub>CC</sub>		1.5 ~ 3.63	VDC
Supply Current, typ/max	I <sub>s</sub>	Ta = 25°C	1.3 / 2.5	μA
Operating Temperature Range	Ta		-40 ~ +85	°C
Storage Temperature Range	T(stg)	Absolute max	-40 ~ +105	°C
Frequency Stability vs. Temperature	Δf/fo(Ta)	Reference to +25°C (-40 ~ +85°C)	±10	ppm
Aging, max		1 <sup>st</sup> year	±3.0	ppm
Initial Frequency Calibration, max	fc	Measured at 25°C, before shipment	±3.0	ppm
Reflow Shift, max	Δf/f <sub>r</sub>		±1.0	ppm
Frequency Voltage Coefficient, max			±1.0	ppm/V
Output Levels, CMOS	V <sub>OH</sub>	"1" Level, min	0.9 x V <sub>CC</sub>	V
	V <sub>OL</sub>	"0" Level, max	0.1 x V <sub>CC</sub>	V
Enable/Disable	V <sub>iL</sub>	Max	0.2 x V <sub>CC</sub>	V
	V <sub>iH</sub>	Min	0.8 x V <sub>CC</sub>	V
Load			30	pF
Stand-by Current, max			2.5	μA
Start-up Time, max	t <sub>s</sub>		0.5	s
Rise and Fall Time, max	t <sub>r</sub> /t <sub>f</sub>	10%V <sub>CC</sub> to 90% V <sub>CC</sub>	40	ns
Symmetry	-	@ 50% V <sub>CC</sub> level	40 ~ 60	%

#### 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
RoHS	Compliant
REACH SVHC	Compliant
HALOGEN-FREE	Compliant
ESD CLASSIFICATION LEVEL	N/A
TERMINATION FINISH	Sn



### MARKING

Rx0.32  
• UDXyw

x – Internal Production ID code  
y – Year code  
w – Week code

YEAR CODE	
Year	Code
2018	8
2019	9
2020	0
2021	1
2022	2
2023	3
2024	4
2025	5
2026	6
2027	7
2028	8
2029	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:	JS, December 5, 2024
APPROVED BY:	CP, December 5, 2024
REVISION:	A, Initial Release

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