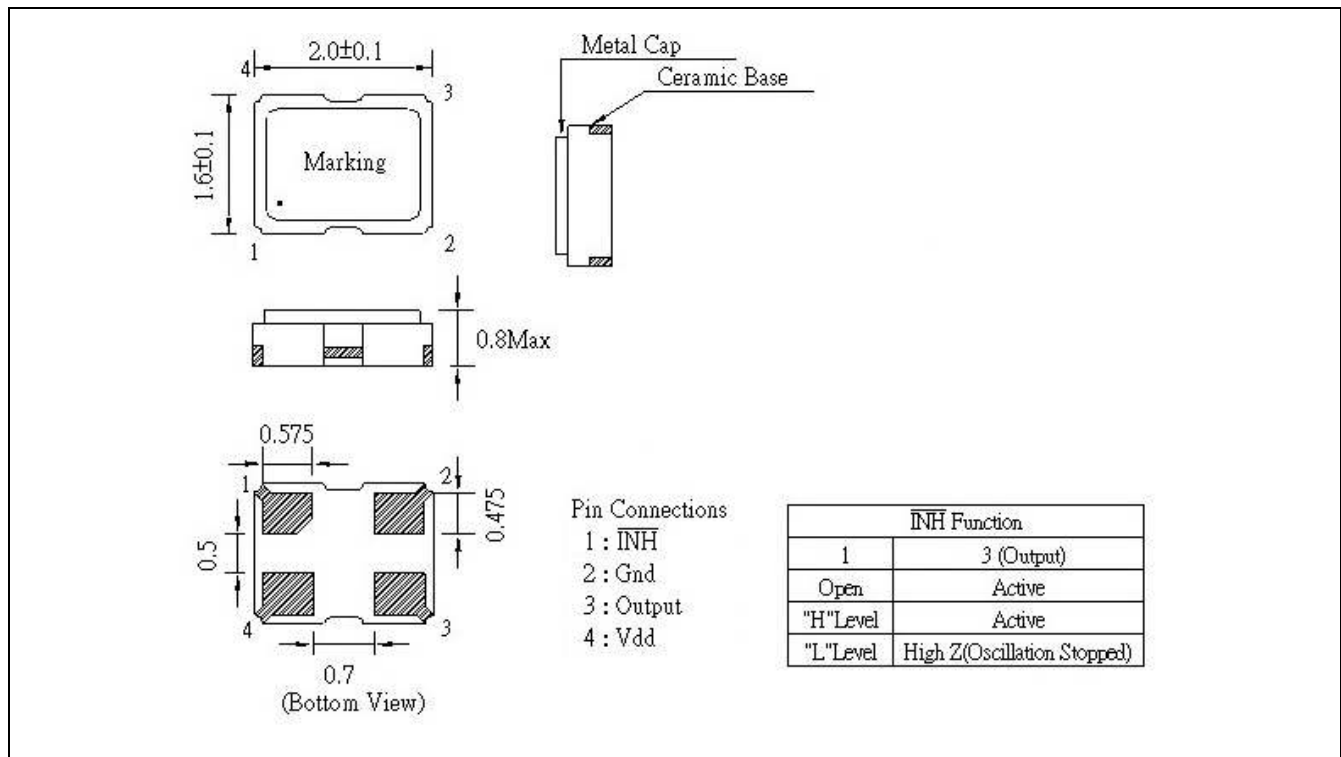


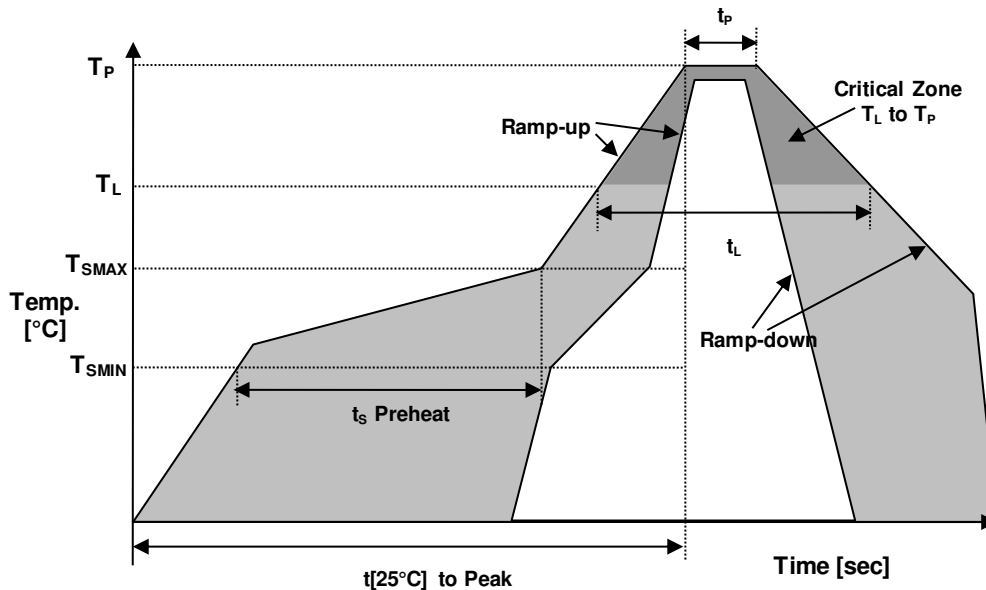
ELECTRICAL SPECIFICATION

| PARAMETER | SYMBOL | CONDITIONS | VALUE | UNIT |
|------------------------------|----------------|--|-----------------------------------|--------------------|
| Nominal Frequency | f_o | $T_a=25^{\circ}\text{C}$ | 32.000 | MHz |
| Supply Voltage Range | V_{CC} | $V_S \pm 10\%$ | 3.3 | VDC |
| Supply Current, max | I_S | $T_a=25^{\circ}\text{C}$ | 2.5 | mA |
| Operating Temperature | T_a | | -40 ~ +85 | $^{\circ}\text{C}$ |
| Storage Temperature | $T_{(stg)}$ | Absolute max | -40 ~ +85 | $^{\circ}\text{C}$ |
| Frequency Tolerance, max | $\Delta f/f_o$ | Inclusive of 25°C Tolerance and Changes due to Operating Temperature, Supply Voltage, Load and Aging | ± 50 | ppm |
| Output Voltage | V_{OL} | Logic "0" Level | $0.1 \times V_{CC}$ | VDC |
| | V_{OH} | Logic "1" Level | $0.9 \times V_{CC}$ | VDC |
| Output Load | | CMOS Output | 15 | pF |
| Enable / Disable Function | E/D | Pin 1: N.C. (Open) or High | Pin 3 – Oscillation (Enabled) | |
| | | Pin 1: Low | Pin 3 – High Impedance (Disabled) | |
| Symmetry (Duty Cycle) | DC | @50% Vdd | 40 ~ 60 | % |
| Rise Time and Fall Time, max | t_r / t_f | @10% to 90% Vdd | 10 | ns |
| Start-up time, max | t_s | $V_{OUT} \geq 90\% V_{P-P}$ | 10 | ms |

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 |
| RoHS | Compliant |
| REACH SVHC | Compliant |
| HALOGEN-FREE | Compliant |
| ESD CLASSIFICATION LEVEL | N/A |
| TERMINATION FINISH | Au |



MARKING

Rx32.00
•33BEyw

x – 1 or 2 digits as 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 | YLi, June 4, 2020 |
| APPROVED BY | CP, June 4, 2020 |
| 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.