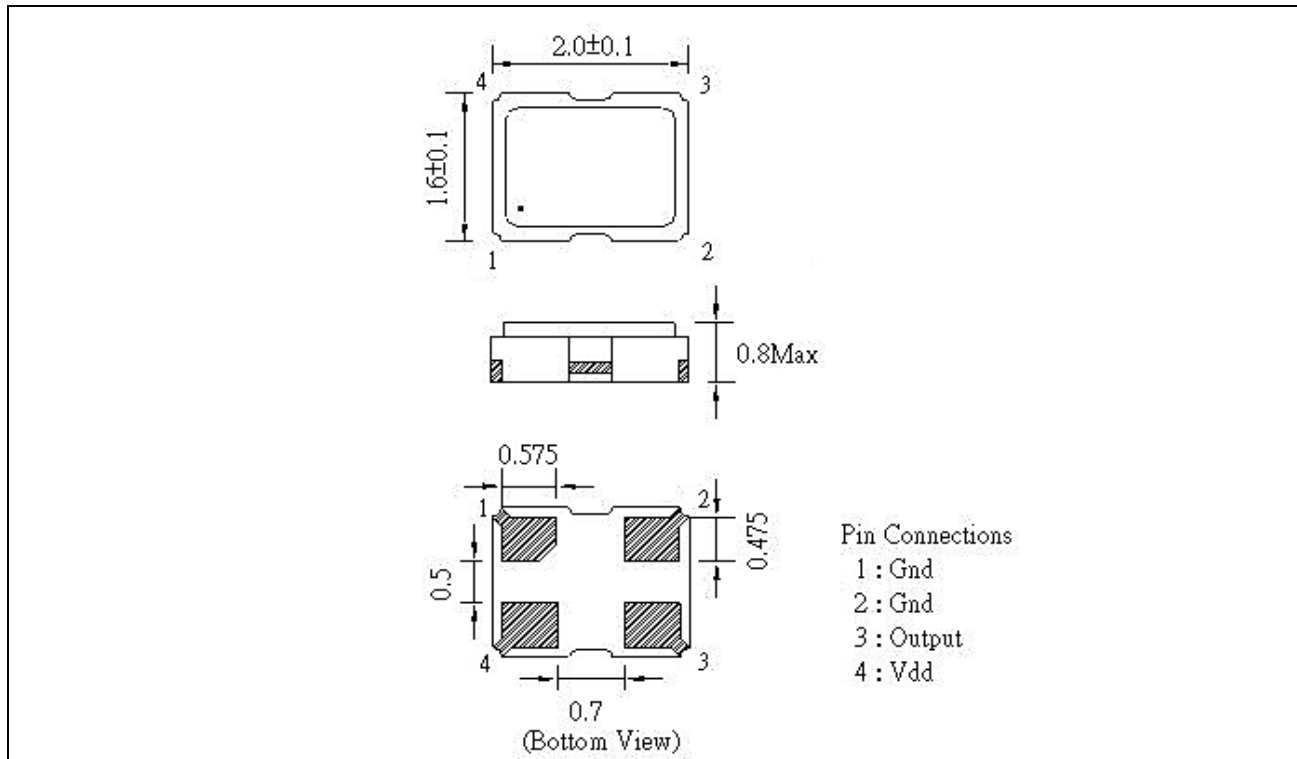


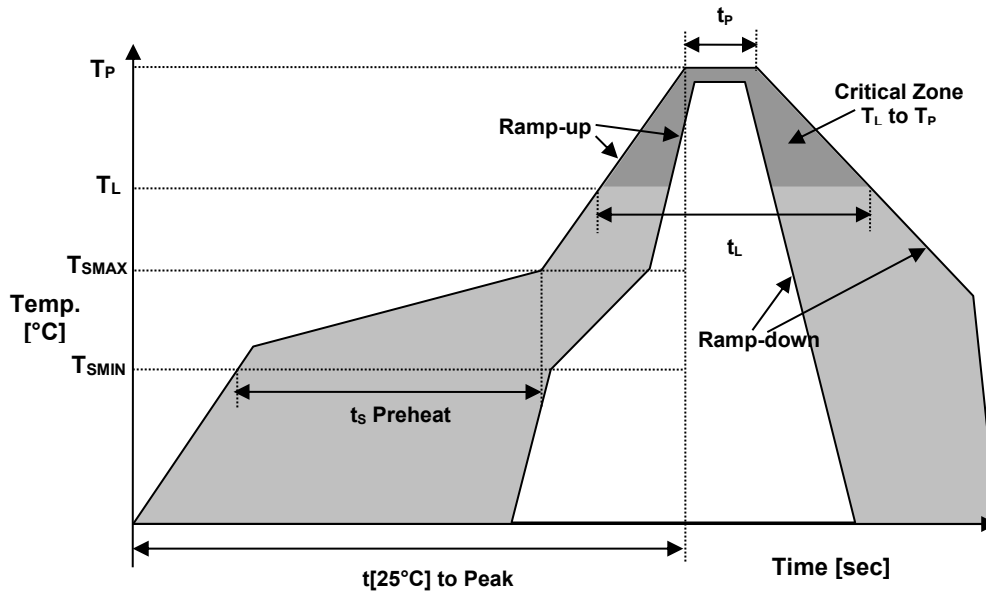
ELECTRICAL SPECIFICATION

| PARAMETER | SYMBOL | CONDITIONS | VALUE | UNIT |
|-------------------------------------|-----------------------------|--|-----------|------------------|
| Nominal Frequency | f_0 | $V_{CC} \pm 5\%$ | 48.000 | MHz |
| Supply Voltage, nom. | V_{CC} | $V_{CC} \pm 5\%$ | 3.3 | VDC |
| Supply Current, max | I_S | $V_{CC} \pm 5\%$ | 2.5 | mA |
| Operating Temperature Range | T_a | | -30 ~ +85 | °C |
| Storage Temperature Range | $T(stg)$ | Absolute max | -40 ~ +85 | °C |
| Frequency Stability vs. Temperature | $\Delta f/f_0(T_a)$ | Reference to +25°C ± 2°C (-30 ~ +85°C) | ±0.5 | ppm |
| Frequency Stability | | | | |
| vs. Supply Voltage | $\Delta f/f_V$ | $V_{CC} \pm 5\%$ | ±0.2 | ppm |
| vs. Load | $\Delta f/f_L$ | Load ±10% | ±0.2 | ppm |
| vs. Aging max | $\Delta f/f_0(\text{year})$ | Per Year at +25°C ± 2°C | ±1.0 | ppm |
| Initial Frequency Calibration, max | | Measured at 25°C, after 2 reflows | ±2.0 | ppm |
| Output Level, Clipped Sine Wave | | 10kΩ // 10 pF ±10% | 0.8 | V _{P-P} |

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 | 60-120 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 | 30 sec. |
| Time $t_{[25^\circ\text{C}] \text{ to Peak Temperature}}$ | $t_{[25^\circ\text{C}] \text{ to Peak}}$ | 480 sec. |
| Time | t_L | 60-150 sec. |

ENVIRONMENTAL

| PARAMETER | VALUE |
|----------------------------|-----------|
| MOISTURE SENSITIVITY LEVEL | 1 |
| REACH | Compliant |
| RoHS | Compliant |
| TERMINATION FINISH | Au |





A RAMI TECHNOLOGY Company

TCXO

RTX-2016AF333-S-48.000-TR

Page 3 of 3

MARKING

Rx48.00

•AF3yw

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

YEAR CODE table with columns Year and Code, mapping years 2015-2023 to codes 5-3.

ALPHA WEEK CODE TABLE with columns Week and Code, mapping weeks 1-52 to letters a-Z.

APPROVALS

Approval table with fields: RALTRON, Created by, date: AR, January 28, 2019; Eng. approval, date: CP, January 28, 2019; Revision: A

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.

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.