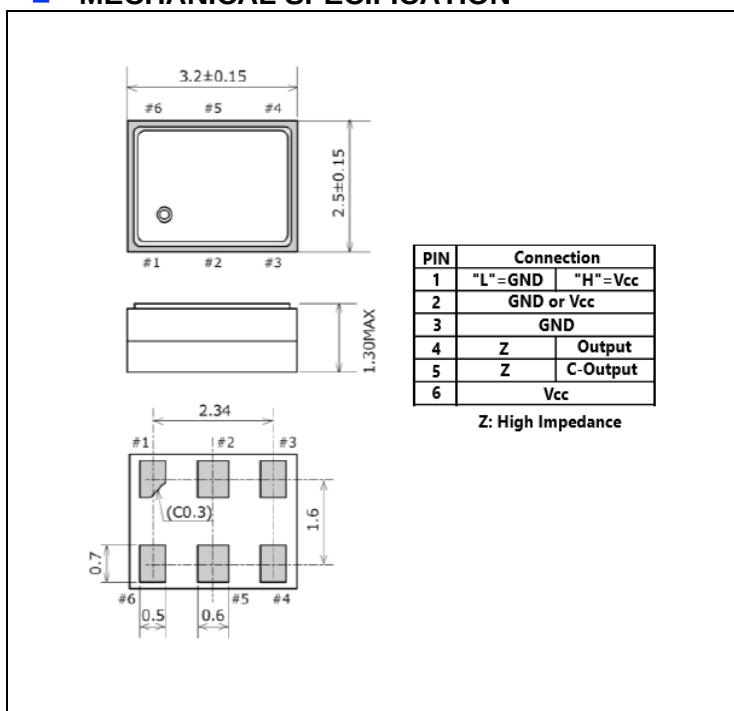




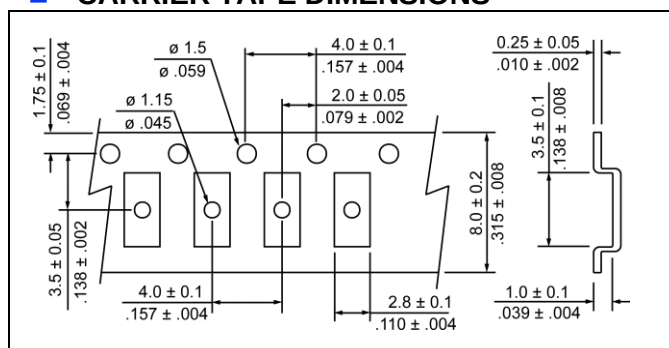
#### ELECTRICAL SPECIFICATION

| PARAMETER                            | SYMBOL          | CONDITIONS                                                                                                                       | VALUE            | UNIT               |
|--------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------|
| Nominal Frequency                    | $f_o$           | $T_a = +25^{\circ}\text{C}$                                                                                                      | 625.000          | MHz                |
| Supply Voltage                       | $V_{CC}$        | $V_{CC} \pm 5\%$                                                                                                                 | 3.3              | VDC                |
| Supply Current, typ/max              | $I_s$           | $T_a = +25^{\circ}\text{C}$                                                                                                      | 20/40            | mA                 |
| Operating Temperature Range          | $T_a$           |                                                                                                                                  | -40 ~ +85        | $^{\circ}\text{C}$ |
| Storage Temperature Range            | $T_{(stg)}$     | Absolute max                                                                                                                     | -55 ~ +125       | $^{\circ}\text{C}$ |
| Output Logic Type                    |                 |                                                                                                                                  | LVDS             |                    |
| Freq. Stability, max                 | $\Delta f/f_o$  | Inclusive of $25^{\circ}\text{C}$ Tolerance and Changes due to Operating Temperature, Supply Voltage, Load, and First Year Aging | $\pm 25$         | ppm                |
| Output Voltage, typ                  | $V_{OH}$        | typ                                                                                                                              | 1.43             | V                  |
|                                      | $V_{OL}$        | typ                                                                                                                              | 1.10             | V                  |
| Output Offset Voltage, min/typ/max   | $V_{OS}$        |                                                                                                                                  | 1.125/1.25/1.375 | V                  |
| Output Offset Error, max             |                 |                                                                                                                                  | 50               | mV                 |
| Output Load                          | ---             | Connected between Out and Complementary Out                                                                                      | 100              | $\Omega$           |
| Enable / Disable Function            | E/D             | Pin 1: N.C. (Open) or High Pin 4 & 5 – Oscillation (Enabled), min                                                                | $V_{CC}$         | V                  |
|                                      |                 | Pin 1: Low Pin 4 & 5 – High Impedance (Disabled), max                                                                            | GND              | V                  |
| Differential Output Voltage, min/typ |                 |                                                                                                                                  | 250/350          | mV                 |
| Differential Output Error, max       | $\Delta V_{OD}$ |                                                                                                                                  | 50               | mV                 |
| Symmetry (Duty Cycle)                | DC              | @50% Waveform                                                                                                                    | 45 ~ 55          | %                  |
| Rise Time / Fall Time, typ,max       | $t_r / t_f$     | @20% to 80% Waveform                                                                                                             | 300, 500         | ps                 |
| Disable Delay Time, max              |                 |                                                                                                                                  | 200              | ns                 |
| Enable Delay Time, max               |                 |                                                                                                                                  | 10               | ms                 |
| Start-up Time, max                   | $t_s$           |                                                                                                                                  | 10               | ms                 |
| Stand By Current, max                |                 |                                                                                                                                  | 30               | $\mu\text{A}$      |
| RMS Phase Jitter, typ/max            | J               | $1\sigma$ , $12\text{kHz} < F_J < 20\text{MHz}$                                                                                  | 20/30            | fs                 |

#### MECHANICAL SPECIFICATION



#### CARRIER TAPE DIMENSIONS

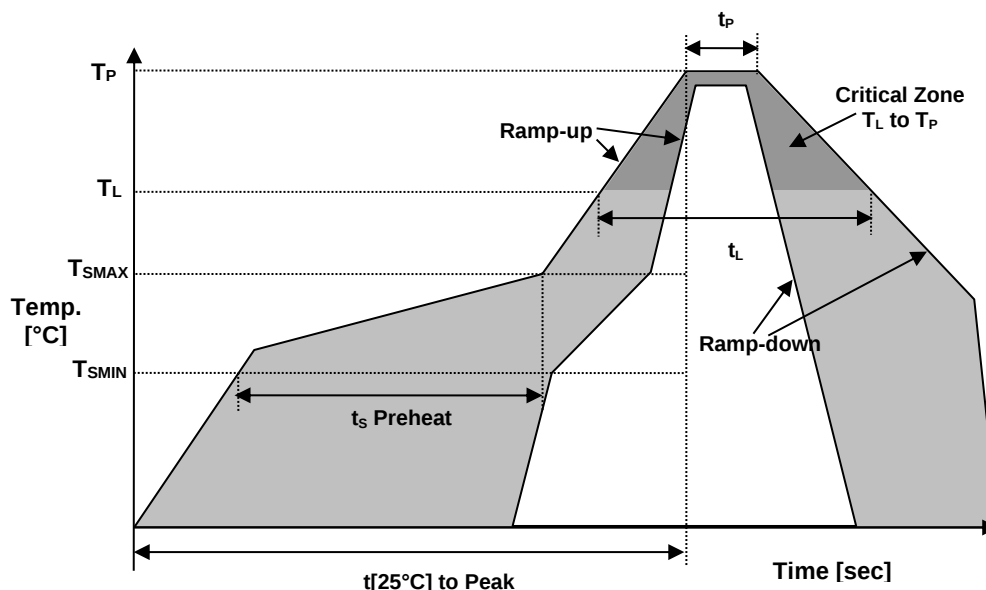


NOTE: REFER TO EIA-481 FOR DIMENSIONS NOT LISTED

#### PACKAGING

178 mm REEL DIAMETER  
8 mm TAPE WIDTH, 4 mm PITCH  
QUANTITY: 3000 PIECES PER REEL

### 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 | $t[25^\circ\text{C}] \text{ to Peak}$ | 480 sec.     |
| Time                                           | $t_L$                                 | 60-150 sec.  |

### ENVIRONMENTAL

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



#### MARKING

Rx625  
•3AEyw

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:    | JS, February 12, 2025 |
| APPROVED BY: | CP, February 12, 2025 |
| REVISION:    | A, Initial Release    |

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