

**SERIES COM1**

## FEATURES

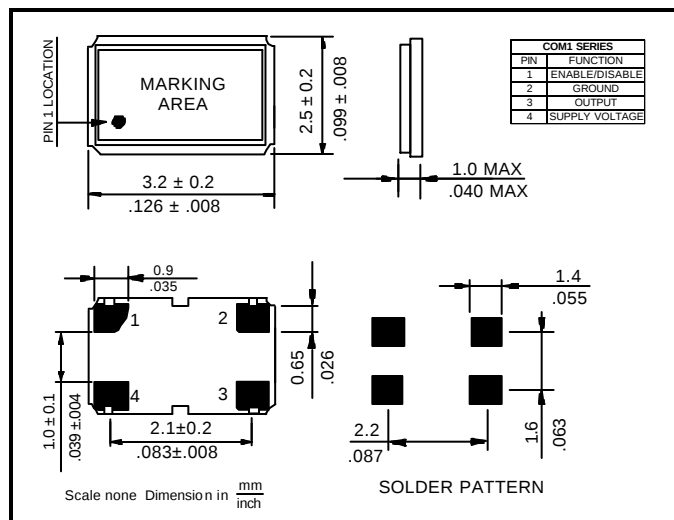
- ULTRA SMALL PACKAGE OF 3.2 x 2.5 x 1.0mm TYPICAL
- LOW SUPPLY VOLTAGE OF 1.8 AND 2.5 VDC AVAILABLE
- STANDBY FUNCTION
- LEAD FREE / RoHS COMPLIANT

## SPECIFICATIONS

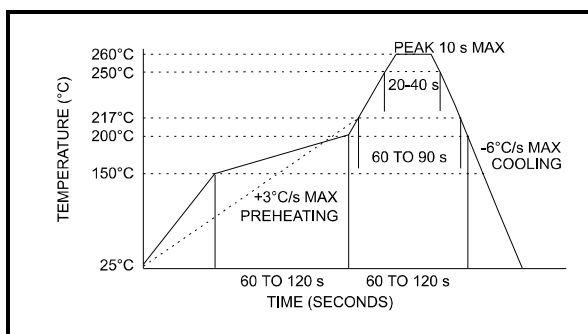
| SERIES                      |                  | COM118                                                                     | COM125                                                               | COM13                                                                 |
|-----------------------------|------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------------|
| FREQUENCY RANGE             |                  | 1.544 MHz TO 60.000 MHz                                                    |                                                                      |                                                                       |
| FREQUENCY STABILITY **      |                  | COM11810 : ±100 ppm                                                        | COM12510 : ±100 ppm                                                  | COM1310 : ±100ppm                                                     |
|                             |                  | COM11805 : ±50 ppm                                                         | COM12505 : ±50 ppm                                                   | COM1305 : ±50ppm                                                      |
|                             |                  | COM118025 : ±25 ppm                                                        | COM125025 : ±25 ppm                                                  | COM13025 : ±25ppm                                                     |
| OPERATING TEMPERATURE RANGE |                  | -10°C TO +70°C (-40°C TO +85°C AVAILABLE)                                  |                                                                      |                                                                       |
| STORAGE TEMPERATURE RANGE   |                  | -55° C TO +125° C                                                          |                                                                      |                                                                       |
| INPUT                       | VOLTAGE          | +1.8 VDC ±5%                                                               | +2.5 VDC ±5%                                                         | +3.3 VDC ±10%                                                         |
|                             | CURRENT (MAX)    | 1.544 MHz TO 9.99MHz: 5 mA MAX                                             | 1.544 MHz TO 9.99MHz: 6 mA MAX                                       | 1.544 MHz TO 9.99MHz: 7 mA MAX                                        |
|                             |                  | 10.00 MHz TO 31.99 MHz: 6 mA MAX<br>32.00 MHz TO 60.00 MHz: 15mA MAX       | 10.00 MHz TO 31.99 MHz: 8 mA MAX<br>32.00 MHz TO 60.00 MHz: 20mA MAX | 10.00 MHz TO 31.99 MHz: 10 mA MAX<br>32.00 MHz TO 60.00 MHz: 20mA MAX |
| OUTPUT                      | SYMMETRY         | 40 TO 60% AT 50% VDD (45 TO 55% AVAILABLE)                                 |                                                                      |                                                                       |
|                             | RISE / FALL TIME | 5 ns MAX                                                                   |                                                                      | 20 ns MAX                                                             |
|                             | LOGIC "0" LEVEL  | VCC X 0.1 V MAX                                                            |                                                                      |                                                                       |
|                             | LOGIC "1" LEVEL  | VCC X 0.9 V MIN                                                            |                                                                      |                                                                       |
|                             | LOAD             | 15 pF (HCMOS)                                                              |                                                                      |                                                                       |
| ENABLE/DISABLE FUNCTION     |                  | PIN 1: HIGH OR OPEN PIN 3: OSCILLATION<br>PIN 1: LOW PIN 3: HIGH IMPEDANCE |                                                                      |                                                                       |
| START UP TIME               |                  | 10 ms MAX                                                                  |                                                                      |                                                                       |
| STANDBY CURRENT             |                  | 10 µA MAX                                                                  |                                                                      |                                                                       |

**\*\* INCLUSIVE OF 25°C TOLERANCE, OPERATING TEMPERATURE RANGE, VOLTAGE OR LOAD CHANGES, AGING, SHOCK AND VIBRATION. CONSULT FACTORY FOR TIGHTER STABILITY OPTIONS.**

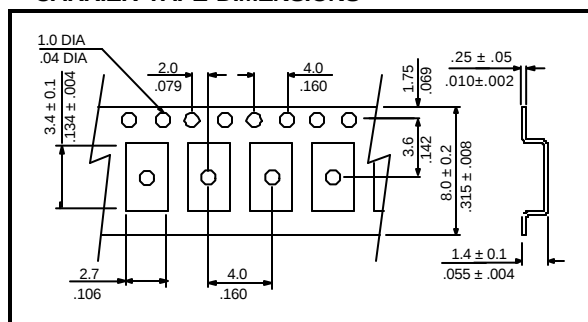
## ● OUTLINE DRAWING



## REFLOW SOLDERING PROFILE



## CARRIER TAPE DIMENSIONS



## PACKAGING

178 mm REEL DIAMETER, 8mm TAPE WIDTH, 4mm PITCH  
QUANTITY: 1000 PIECES PER REEL

## PART NUMBERING SYSTEM

| SERIES |  | SUPPLY VOLTAGE |      | FREQUENCY STABILITY |          | FREQUENCY |  | EXTENDED TEMPERATURE |  | DUTY CYCLE |            | TAPE & REEL |  |
|--------|--|----------------|------|---------------------|----------|-----------|--|----------------------|--|------------|------------|-------------|--|
| COM1   |  | 18             | 1.8V | 10                  | ±100 PPM | IN MHz    |  | EXT                  |  | T          | 45% TO 55% | TR          |  |
|        |  | 25             | 2.5V | 05                  | ±50 PPM  |           |  |                      |  |            |            |             |  |
|        |  | 3              | 3.3V | 025                 | ±25 PPM  |           |  |                      |  |            |            |             |  |

EXAMPLES: COM1305-25,000-EXT-T-TR