

### FEATURES

- ULTRA SMALL PACKAGE
- EXCELLENT FOR HIGH DENSITY PACKAGING
- SUITABLE FOR REFLOW SOLDERING

### SPECIFICATIONS

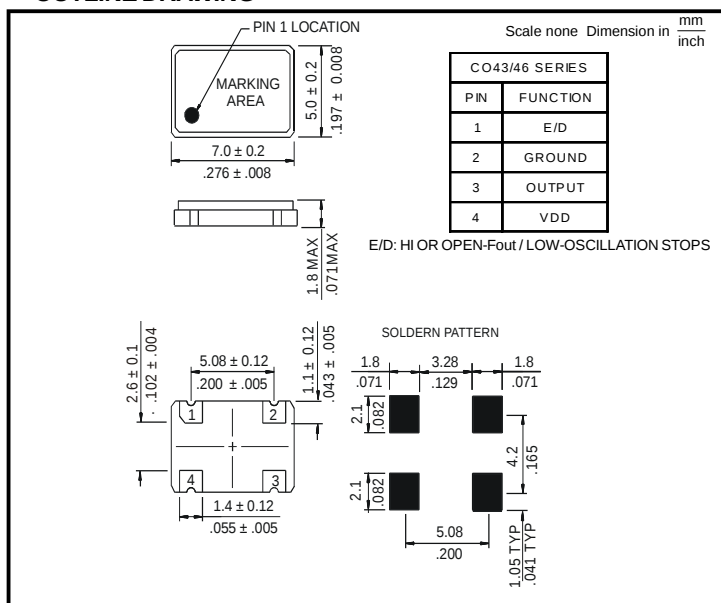
| SERIES                  |                             | CO43                                                                                                                                                            | CO46                                             |
|-------------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| PARAMETER               |                             |                                                                                                                                                                 |                                                  |
| FREQUENCY RANGE         |                             | 1.000 MHz TO 50.000 MHz                                                                                                                                         | 50.000 MHz TO 156.250 MHz                        |
| FREQUENCY STABILITY †   |                             | $\pm 100$ PPM<br>$\pm 50$ PPM<br>$\pm 25$ PPM *<br>$\pm 20$ PPM *                                                                                               |                                                  |
| TEMPERATURE RANGE       | OPERATING                   | -10°C TO +70°C                                                                                                                                                  |                                                  |
|                         | EXTENDED                    | -40°C TO +85°C                                                                                                                                                  |                                                  |
|                         | STORAGE                     | -55°C TO +125°C                                                                                                                                                 |                                                  |
| INPUT                   | VOLTAGE                     | +3.3 VDC $\pm 10\%$                                                                                                                                             |                                                  |
|                         | CURRENT, MAX                | 25 mA MAX                                                                                                                                                       | 45 mA MAX                                        |
| OUTPUT                  | LOAD                        | 5 TTL MAX OR 20 pF CMOS                                                                                                                                         | 5 TTL MAX OR 15 pF CMOS                          |
|                         | SYMMETRY                    | NORMAL: 40% TO 60%<br>TIGHT: 45% TO 55%                                                                                                                         |                                                  |
|                         | LEVEL                       | LOGIC "0": 0.4 VDC MAX<br>LOGIC "1": 2.8 VDC MIN                                                                                                                | LOGIC "0": 0.5 VDC MAX<br>LOGIC "1": 2.8 VDC MIN |
|                         | RISE/FALL TIME (20% to 80%) | 1.00 MHz TO 10.00 MHz: 5 ns<br>10.10 MHz TO 30.00 MHz: 4 ns<br>30.10 MHz TO 50.00 MHz: 3 ns<br>50.10 MHz TO 80.00 MHz: 2.5 ns<br>80.10 MHz TO 156.250 MHz: 2 ns |                                                  |
|                         | JITTER                      | 1.0 ps RMS ( $1\sigma$ ), 12kHz < Fj < 20MHz                                                                                                                    |                                                  |
| ENABLE/DISABLE FUNCTION |                             | PIN 1: HIGH (+2.2 VDC MIN) PIN 3: ENABLED<br>PIN 1: LOW (+0.8 VDC MAX) PIN 3: DISABLED (HIGH IMPEDANCE)                                                         |                                                  |

† INCLUSIVE OF 25°C TOLERANCE, OPERATING TEMPERATURE RANGE, VOLTAGE OR LOAD CHANGES, AGING, SHOCK AND VIBRATION

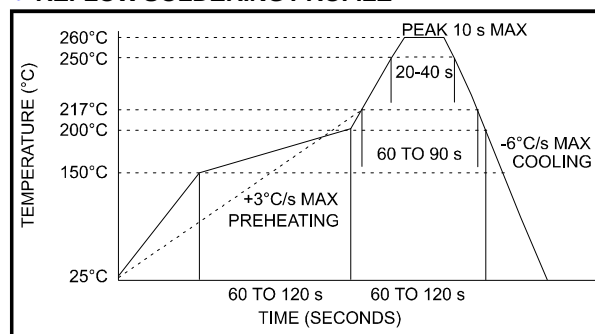
\* STABILITY OVER TEMPERATURE ONLY AT -40°C TO +85°C



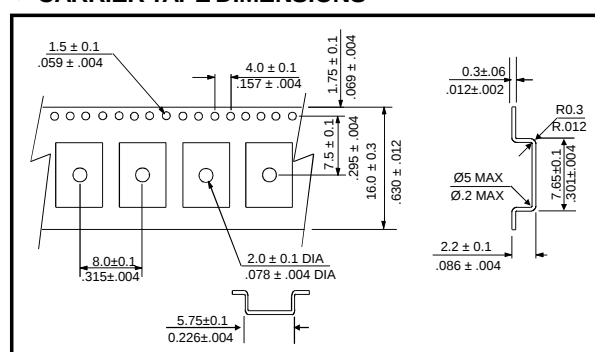
### OUTLINE DRAWING



### REFLOW SOLDERING PROFILE



### CARRIER TAPE DIMENSIONS



### PACKAGING

254 mm REEL DIAMETER, 16mm TAPE WIDTH, 8mm PITCH  
QUANTITY: 1000 PIECES PER REEL

### PART NUMBERING SYSTEM

| SERIES | FREQUENCY STABILITY   | FREQUENCY                                                     | EXTENDED TEMPERATURE | TIGHT SYMMETRY                      | TAPE AND REEL                |
|--------|-----------------------|---------------------------------------------------------------|----------------------|-------------------------------------|------------------------------|
| CO43   | 10<br>05<br>025<br>02 | $\pm 100$ PPM<br>$\pm 50$ PPM<br>$\pm 25$ PPM<br>$\pm 20$ PPM | IN MHz               | EXT<br>EXTENDED<br>(-40°C TO +85°C) | T<br>TIGHT SYMMETRY (45-55%) |
| CO46   |                       |                                                               |                      |                                     | TR                           |

EXAMPLE: CO4305-32.000-TR, CO4610-50.000-T-TR