

**TCXO/VCTCXO ULTRA MINIATURE SMD (2.5 x 2.0 x 0.71mm)**
**FEATURES:**

- LOW VOLTAGE / LOW CURRENT
- REFLOW CAPABLE
- LOW COST FOR A TIGHT STABILITY TCXO

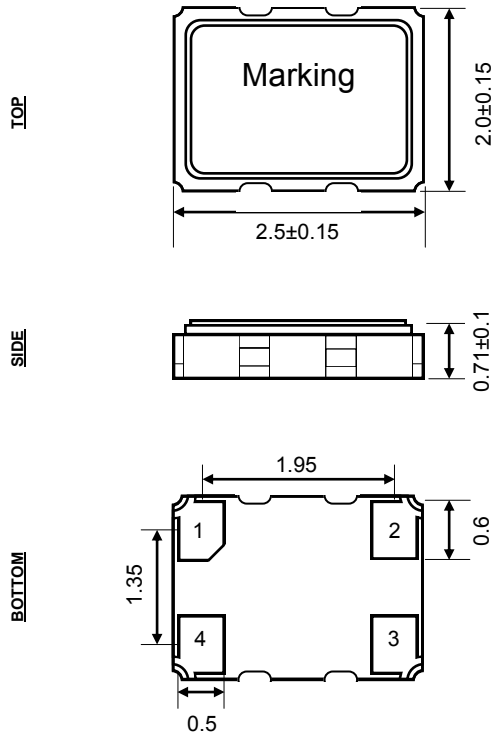
**APPLICATIONS:**

- GPS, GPS Module
- Cellular Phone (CDMA & WCDMA)
- WiMAX, WLAN


**■ SPECIFICATION**

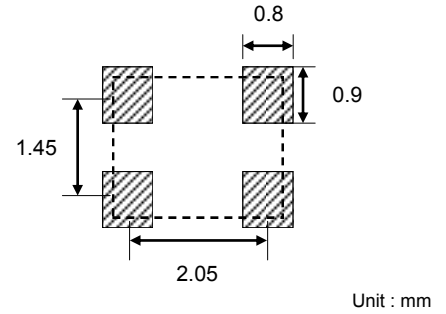
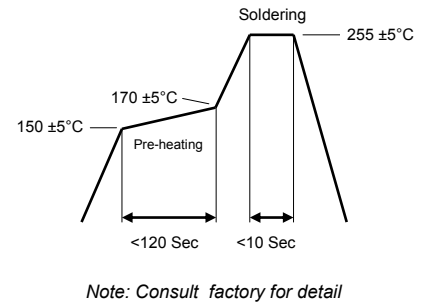
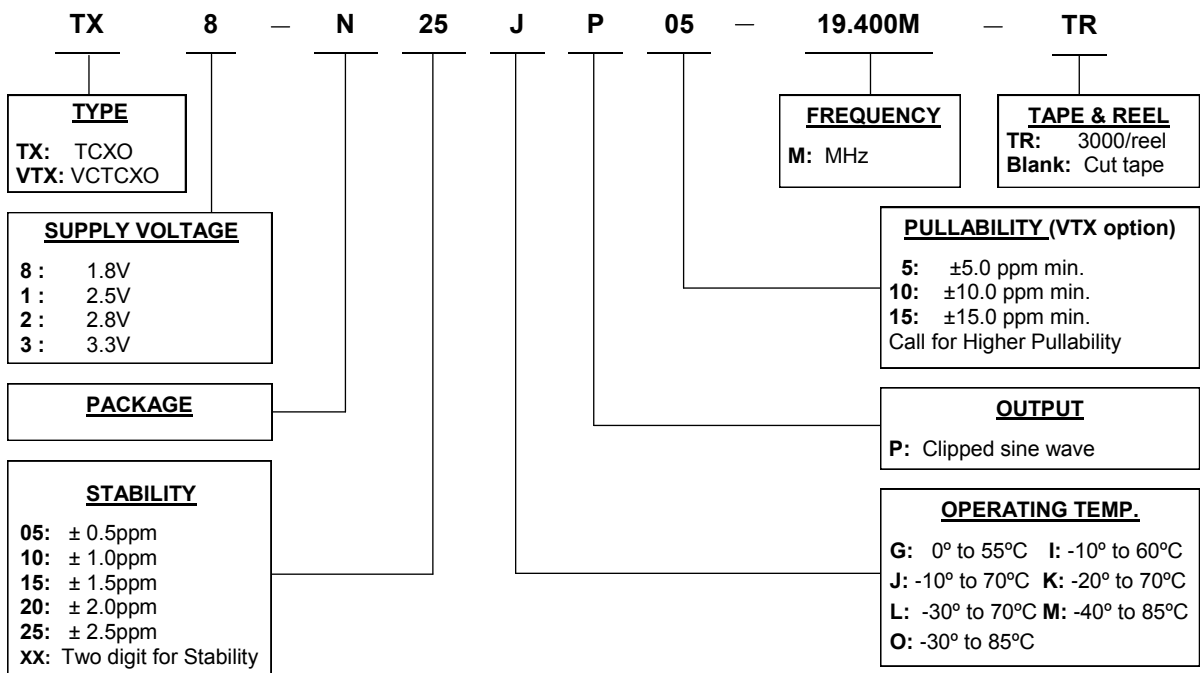
| PARAMETER                   |                         | MIN.   | TYP. | MAX. | UNIT             | NOTE                            |
|-----------------------------|-------------------------|--|------|------|------------------|---------------------------------|
| FREQUENCY RANGE             |                         | 13   |      | 52   | MHz              |                                 |
| STANDARD FREQUENCIES        |                         | 16.367667M, 16.368M, 16.369M, 19.2M, 19.68M, 20M, 26M, 40M |      |      |                  |                                 |
| FREQUENCY TOLERANCE         |                         |  |      | ±2.0 | ppm              |                                 |
| FREQUENCY STABILITY         | vs. TEMPERATURE RANGE   | ±0.5   |      | ±2.5 | ppm              | See P/N guide for other options |
|                             | vs. LOAD ± 10%          |  |      | ±0.2 | ppm              |                                 |
|                             | vs. SUPPLY VOLTAGE ± 5% |  |      | ±0.2 | ppm              |                                 |
|                             | vs. AGING               |  |      | ±1.0 | ppm/year         |                                 |
| OPERATING TEMPERATURE RANGE |                         | -40  |      | 85   | °C               | See P/N guide for other options |
| STORAGE TEMPERATURE RANGE   |                         | -55  |      | 125  | °C               |                                 |
| SUPPLY VOLTAGE ±5%          |                         | 1.8  |      | 3.3  | V                | See P/N guide for other options |
| SUPPLY CURRENT              | 13MHz ≤ f < 26MHz       |  |      | 2.0  | mA               |                                 |
|                             | 26MHz ≤ f ≤ 52MHz       |  |      | 2.5  | mA               |                                 |
| OUTPUT                      | LOGIC FAMILY            | Clipped Sine wave  |      |      |                  |                                 |
|                             | LOAD                    | 10kΩ//10pF   |      |      |                  |                                 |
|                             | LEVEL                   | 0.8  |      |      | V <sub>P-P</sub> |                                 |
| FREQUENCY DEVIATION         |                         | ±5.0   |      |      | ppm              | See P/N guide for other options |
| CONTROL VOLTAGE             | 1.8V                    | 0.3  |      | 1.5  | V                |                                 |
|                             | 2.5V                    | 0.4  |      | 2.4  | V                |                                 |
|                             | 2.8V                    | 0.4  |      | 2.4  | V                |                                 |
| VC INPUT IMPEDANCE          |                         | 500  |      |      | kΩ               |                                 |
| SLOPE                       |                         | Positive   |      |      |                  |                                 |
| PHASE NOISE                 | 100Hz                   |  | -115 |      | dBc/Hz           | @ 19.2MHz                       |
|                             | 1kHz                    |  | -135 |      | dBc/Hz           |                                 |
|                             | 10kHz                   |  | -148 |      | dBc/Hz           |                                 |

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**■ PACKAGE DIMENSIONS**


Unit : mm

| Pin Configuration |                 |
|-------------------|-----------------|
| 1                 | N/C or Vc       |
| 2                 | GND             |
| 3                 | Output          |
| 4                 | V <sub>DD</sub> |

**■ SOLDER PATTERN**

**■ REFLOW PROFILE**

**■ PART NUMBERING GUIDE**


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