

The sub miniature ECS-TXO-2520 is a miniature SMD HCMOS TCXO. The 2.5 x 2.0 x 0.9 mm ceramic package is ideal for LoRa WAN and wireless IoT applications where stability is critical.

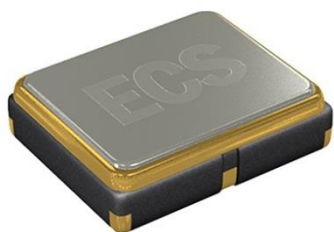
# ECS-TXO-2520

## SMD HCMOS TCXO

[Request a Sample](#)

### OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

#### ECX-2520 SMD HCMOS TCXO



- Low Profile
- 2.5 x 2.0 mm Footprint
- Extended Temp Range
- RoHS Compliant

#### DIMENSIONS (mm)

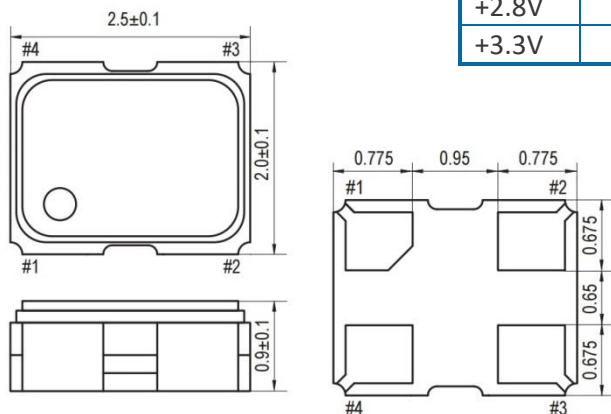


Figure 1) Top, Side, and Bottom views

#### CURRENT CONSUMPTION, mA Max.

| FREQ. | 3.2~ 10 MHz | 10.1~ 20 MHz | 20.1~ 30 MHz | 30.1~ 40 MHz | 40.1 ~55 MHz |
|-------|-------------|--------------|--------------|--------------|--------------|
| +2.5V | 3.1         | 3.7          | 4.2          | 4.6          | 5.5          |
| +2.8V | 3.4         | 4.1          | 4.7          | 5.2          | 6.0          |
| +3.3V | 4.0         | 4.8          | 5.5          | 6.0          | 7.0          |

#### PAD CONNECTIONS

|   |           |
|---|-----------|
| 1 | Tri-state |
| 2 | Gnd       |
| 3 | Output    |
| 4 | Vdd       |

#### Tri State Function

|            |              |
|------------|--------------|
| Pin 1      | Output       |
| High or NC | Active       |
| Low        | Disable Hi-Z |

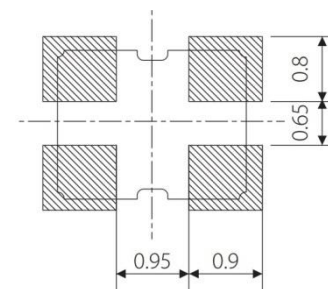


Figure 2) Suggested Land Pattern

### PART NUMBERING GUIDE: Example ECS-TXO-2520-33-160-AN-TR

| ECS - SERIES                  | FREQUENCY ABBREVIATION                 | STABILITY                                          | TEMP RANGE                                     | PACKAGING                                               |
|-------------------------------|----------------------------------------|----------------------------------------------------|------------------------------------------------|---------------------------------------------------------|
| TXO-2520<br>2.5 x 2.0 mm TCXO | 25 = +2.5V<br>28 = +2.8V<br>33 = +3.3V | 160 = 16.000 MHz<br>See Developed Frequencies Pg.2 | * A = ±2.5 ppm<br>B = ±1.5 ppm<br>C = ±1.0 ppm | L = -10 ~ +70°C<br>M = -30 ~ +70°C<br>* N = -40 ~ +85°C |
|                               |                                        |                                                    |                                                | TR = Tape & Reel<br>1K/Reel                             |

\* Standard specification, contact ECS for custom Options

Rev.2017

## FREQUENCY ABBREVIATIONS

| FREQUENCY MHz | CODE |
|---------------|------|
| 5.000         | 050  |
| 10.000        | 100  |
| 12.000        | 120  |
| 16.000        | 160  |
| 20.000        | 200  |
| 24.000        | 240  |
| 25.000        | 250  |
| 32.000        | 320  |
| 40.000        | 400  |
| 44.000        | 440  |

## SOLDER PROFILE

Peak solder Temp +260°C Max 10 sec Max.

2 Cycles Max.

MSL 1, Lead Finish Au

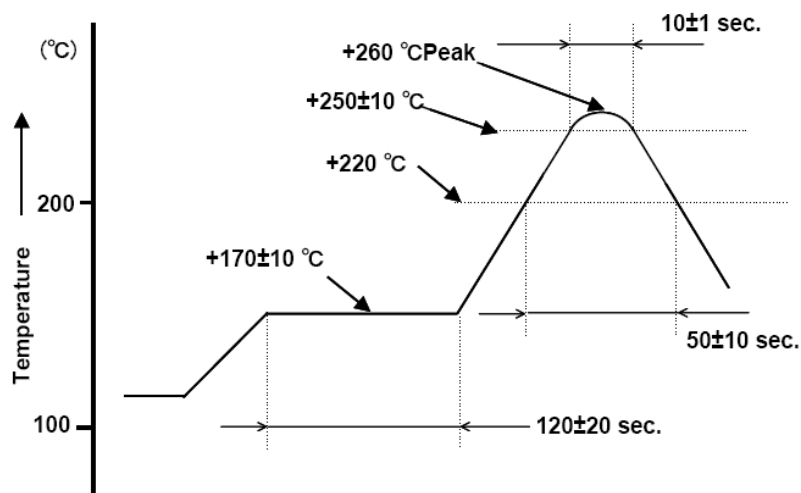
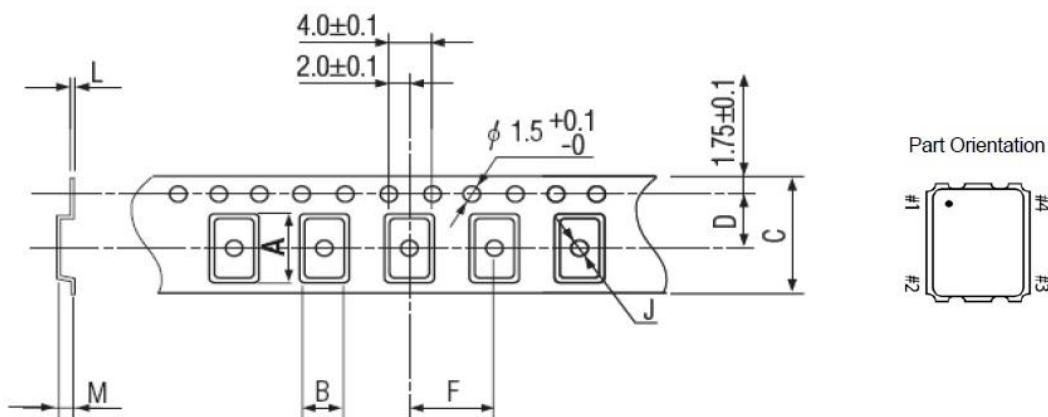


Figure 1) Suggested Reflow Profile

## POCKET TAPE DIMENSIONS (mm)



| A   | B   | C   | D   | F   | J   | L    | M   | Reel Dia. | Qty/Reel |
|-----|-----|-----|-----|-----|-----|------|-----|-----------|----------|
| 2.8 | 2.3 | 8.0 | 3.5 | 4.0 | 1.0 | 0.25 | 1.1 | 180       | 1000pcs  |