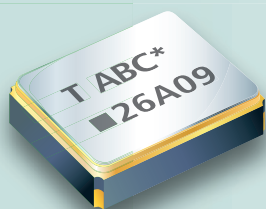


# SMD TCXO

## 2.5 x 2.0 x 0.8 mm

### 7L Series

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#### Features

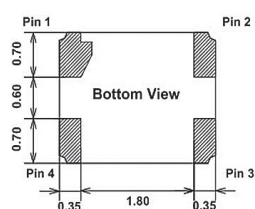
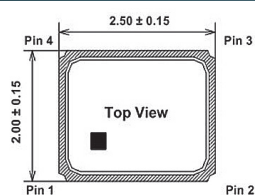
- Temperature Stability:  $\pm 0.5 \text{ ppm} \sim \pm 2.0 \text{ ppm}$ .
- Operating Temperature Range:  $-30^\circ\text{C} \sim 85^\circ\text{C}$ .
- Supply Voltage:  $1.8 \text{ V} \sim 3.3 \text{ V}$ .
- Voltage Control Function Available.
- Frequencies: 16.367667 MHz, 16.368 MHz, 16.369 MHz, 19.2 MHz, 26 MHz, 33.6 MHz, 38.4 MHz, 40 MHz, 52 MHz.
- Applications: GPS, WiMAX, Cellular and Wireless Communications.
- RoHS Compliant / Pb Free.

#### Electrical Specifications

| Item / Type                            |                                                                                          | 7L                                                                                           |
|----------------------------------------|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Output Type                            |                                                                                          | Clipped Sinewave                                                                             |
| Output Load                            |                                                                                          | 10K $\Omega$ // 10 pF                                                                        |
| Oscillation Mode                       |                                                                                          | Fundamental                                                                                  |
| Supply Voltage                         |                                                                                          | 1.8 ~ 3.3 V                                                                                  |
| Frequency Range                        |                                                                                          | 13 ~ 52 MHz                                                                                  |
| Clipped Sinewave Output Voltage        |                                                                                          | 0.8 Vp-p Min.                                                                                |
| Frequency Stability                    | Vs. Temperature ( $-30 \sim +85^\circ\text{C}$ )                                         | $\pm 0.5 / \pm 2.0 \text{ ppm}$                                                              |
|                                        | Vs. Load ( Load varies $\pm 10\%$ )                                                      | $\pm 0.2 \text{ ppm Max.}$                                                                   |
|                                        | Vs. Supply Voltage ( $V_{CC} = \text{Typical} \pm 0.1 \text{ V}$ )                       | $\pm 0.2 \text{ ppm Max.}$                                                                   |
| Frequency Tolerance                    | at $25^\circ\text{C}$ after 2 Reflows with Typical Applied to Auto Frequency Control Pin | $\pm 2.5 \text{ ppm Max.}$                                                                   |
| Slope of Frequency Drift               |                                                                                          | $\pm 0.1 \text{ ppm} / ^\circ\text{C}$ Typical ; $\pm 0.5 \text{ ppm} / ^\circ\text{C}$ Max. |
| Storage Temperature Range              |                                                                                          | $-40 \sim +85^\circ\text{C}$                                                                 |
| Auto Frequency Control ( AFC ) Range * |                                                                                          | $\pm 7 \sim \pm 16 \text{ ppm}$ (1.4V+/-1V)                                                  |
| Supply Current                         |                                                                                          | 2.0 mA Max.                                                                                  |
| Start-up Time                          |                                                                                          | 5 ms Max.                                                                                    |
| Harmonics                              |                                                                                          | -5 dBc Max.                                                                                  |
| Phase Noise at 1 kHz offset            |                                                                                          | -130 dBc / Hz                                                                                |
| Aging ( at $25^\circ\text{C}$ )        |                                                                                          | $\pm 1 \text{ ppm} / \text{year Max.}$                                                       |

\* AFC Range is selective and disable is acceptable.

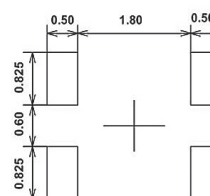
#### Dimensions



#### Pin Connection

| Name  | Connection |
|-------|------------|
| Pin 1 | AFC or GND |
| Pin 2 | GND        |
| Pin 3 | OUTPUT     |
| Pin 4 | VCC        |

#### Recommended Land Pattern



Units: mm