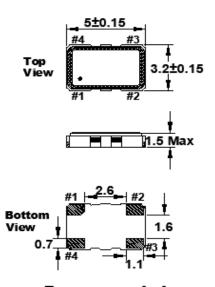
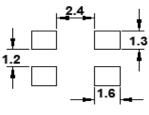


#### **Digital Temperature Compensation**

| ELECTRICAL CHARACTERISTICS   |   |
|--|---|
| PARAMETERS   | MAX (unless otherwise noted)            |
| Frequency Range (MHz)  | 8.000 ~ 40.000                          |
| Temperature Range<br>Operating (T <sub>OPR</sub> )<br>Storage (T <sub>STG</sub> )  | See table below<br>-40°C ~ +85°C        |
| Supply Voltage (V <sub>DD</sub> )  | +3.0V±5%                                |
| Input Current (I <sub>DD</sub> )   | 2.0mA                                   |
| Initial Frequency Tolerance @ 25°C (after reflow)<br>(T5CV: Vc = 1.65V) <sup>1</sup>   | ±2.0 PPM                                |
| Frequency Stability<br>Over Temperature Range<br>Over Supply Voltage Change (3.0V±5%)<br>Over Load Change ([10kΩ//10pF]±10%) | See table below<br>±0.2 PPM<br>±0.2 PPM |
| Output Voltage Level   | 0.8Vp-p min                             |
| Output Load  | [10kΩ//10pF]±10%                        |
| Pullability (T5CV: Vc = 1.5V±1.0V) <sup>1</sup>  | ±3 ~ ±20 PPM min                        |
| Aging per year   | ±1.0 PPM                                |
| Startup Time (T <sub>S</sub> )   | 2.0mS Max                               |
| Phase Noise<br>@ 1kHz offset   | -130 dBc/Hz Typical                     |
| Reflow Soldering Temp  | 260°C / 10 Seconds x 2                  |
| Moisture Sensitivity Level (MSL)   | 1                                       |
| Termination Finish   | Au over Ni                              |
| Lead-Free  | Yes                                     |
| RoHS/REACH Compliant   | Yes                                     |



### Recommended Solder Pad Layout



Dimensions in mm

### Pin Connections

| T5CN   |                    | T5CV   |                    |  |
|--------|--------------------|--------|--------------------|--|
| #1 GND | #3 Output          | #1 Vc  | #3 Output          |  |
| #2 GND | #4 V <sub>DD</sub> | #2 GND | #4 V <sub>DD</sub> |  |

| Operating Temperature | ±1 PPM | ±1.5 PPM | ±2 PPM | ±2.5 PPM |
|-----------------------|--------|----------|--------|----------|
| -30 ~+85°C            | 0      | 0        | 0      | 0        |
| -40 ~+85°C            | Х      | 0        | 0      | 0        |

### Key: O=Available, X=Not Available

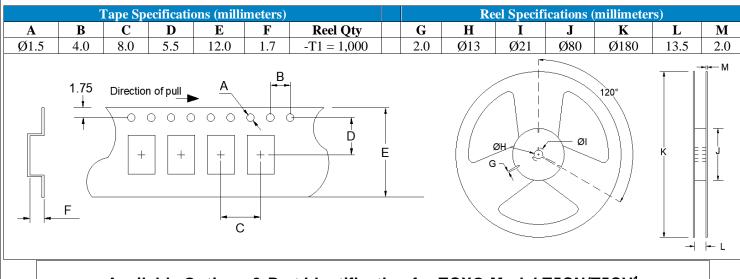
<sup>1</sup>For proper operation, a control voltage (Vc) must be applied to pin 1 of VCTCXO's. All specifications subject to change without notice.

|  |   |               | Page 1 o                  | of 2 |
|--|---|---------------|---------------------------|------|
| 22   | Title / Description: T5CN/T5CV SERIES STANDARD SPECIFICATIONS |               |                           |      |
| FÖX  | Drawing Number: T5CN-T  | Revision: B   |                           |      |
| FOX  | Part Number:  |               | Cage: 61429               |      |
| 1/25/2021 – corrected Vc typo (was 1.65V)<br>© Copyright 2021 Fox Electronics. All rights reserved | Draftsperson: BEC   | Approved: MAJ | Revision Date: 01/25/2021 |      |



## 5.0x3.2mm C-Sine TCXO/VCTCXO

T5CN/T5CV (former FOX914B, FOX914E) DATASHEET



### Available Options & Part Identification for TCXO Model T5CN/T5CV<sup>1</sup> F T5CN D P K 25.0

| F          | T5CN   | D                            | Р   | K   | 25.0                   |
|------------|--|------------------------------|---|---|------------------------|
| <u>FOX</u> | Model<br><u>Number</u><br>T5CN = TCXO<br>T5CV = VCTCXO | <u>Voltage</u><br>D = +3V±5% | <u>Stability</u><br>T = ±1.0 PPM<br>S = ±1.5 PPM<br>R = ±2.0 PPM<br><b>P = ±2.5 PPM</b> | <b>Operating</b><br><u>Temperature</u><br><b>K = -30 to +85°C</b><br>M = -40 to +85°C | Frequency <u>(MHz)</u> |

<sup>1</sup> Not all frequencies in the frequency range, or every combination of stability, temp range, and voltage available. See stabilities/operating temp table.



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| 24  | Title / Description: T5CN/T5CV SERIES STANDARD SPECIFICATIONS |               |                           |  |
|---|---|---------------|---------------------------|--|
| FUX   | Drawing Number: T5CN-T5                                       | Revision: B   |                           |  |
| L/25/2021 – corrected Vc typo (was 1.65V)     Copyright 2021 Fox Electronics. All rights reserved | Part Number:  | Cage: 61429   |                           |  |
|   | Draftsperson: BEC   | Approved: MAJ | Revision Date: 01/25/2021 |  |

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 FT5CNDPK12.8-T1
 FT5CNDPK19.2-T1
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 FT5CNDPK20.0-T1