

# FT5HV

(Former FOX924E)

5.0mm x 3.2mm

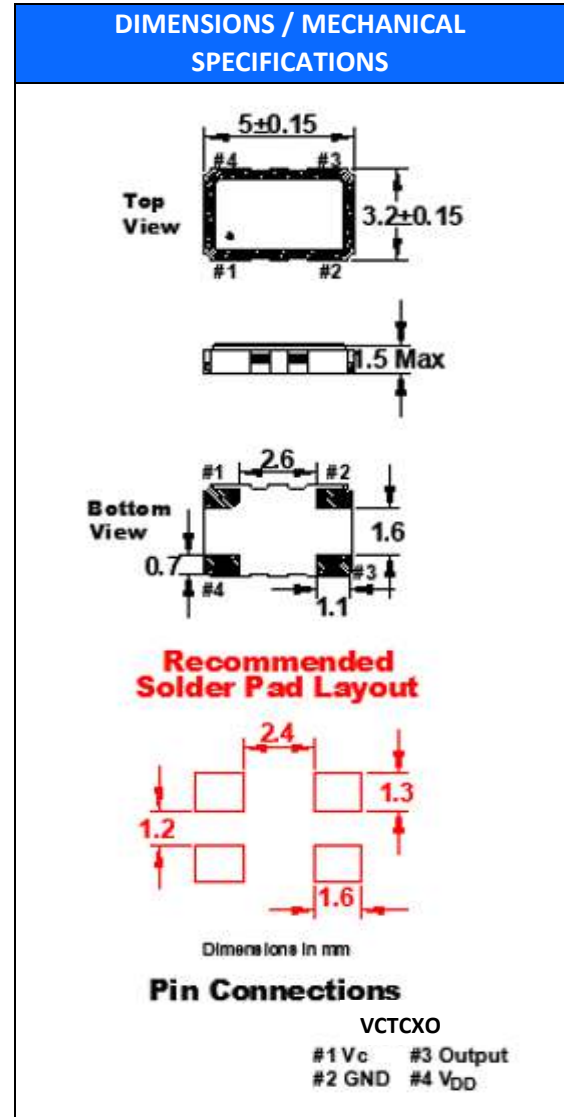
HCMOS VCTCXO



## Features

- Digital Temperature Compensation

| STANDARD SPECIFICATIONS   |                                 |
|---|---------------------------------|
| PARAMETERS  | MAX<br>(Unless otherwise noted) |
| Frequency Range (MHz)   | 8.000 ~ 40.000                  |
| Temperature Range   |                                 |
| Operating ( $T_{OPR}$ )   | See table below                 |
| Storage ( $T_{STG}$ )   | -40°C ~ +85°C                   |
| Supply Voltage ( $V_{DD}$ )   | 3.3 VDC±5%                      |
| Input Current ( $I_{DD}$ )  | 6.0 mA                          |
| Initial Frequency Tolerance @ 25°C<br>(after reflow) ( $T5CV: V_c = 1.65V$ ) <sup>1</sup> | ±2.0 PPM                        |
| Frequency Stability   |                                 |
| Over Temperature Range  | See table below                 |
| Over Supply Voltage Change (3.3V±5%)  | ±0.3 PPM                        |
| Over Load Change (15pF ±5%)   | ±0.3 PPM                        |
| Rise Time (0.5V ~ 80% $V_{DD}$ )  | 10 nS                           |
| Fall Time (80% $V_{DD}$ ~ 0.5V)   | 10 nS                           |
| Symmetry (50% $V_{DD}$ )  | 40% ~ 60%                       |
| Output Voltage ( $V_{OL}$ )   | 0.5V                            |
| ( $V_{OH}$ )  | 80% $V_{DD}$ Min                |
| Output Load   | 15pF                            |
| Pullability   |                                 |
| ( <b>T5HV: <math>V_c = 1.65V \pm 1.0V</math></b> ) <sup>1</sup>                           | ±3 ~ ±20 PPM min                |
| Aging per year  | ±1.0 PPM                        |
| Startup Time ( $T_s$ )  | 2.0 mS Max                      |
| Phase Noise   |                                 |
| @ 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                             |



| Available Options by Stability & Operating Temp |        |          |        |          |
|---|--------|----------|--------|----------|
| Operating Temperature                           | ±1 PPM | ±1.5 PPM | ±2 PPM | ±2.5 PPM |
| -30 ~ +85°C                                     | O      | O        | O      | O        |
| -40 ~ +85°C                                     | X      | O        | O      | O        |

Key: O = Available, X = Not Available

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

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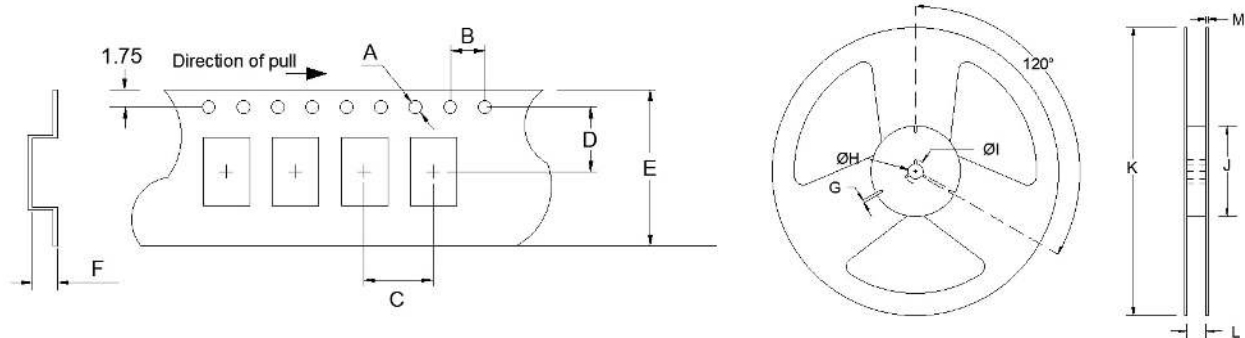
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| TAPE SPECIFICATIONS (mm) |     |     |     |      |     |             | REEL SPECIFICATIONS (mm) |     |     |     |      |      |     |
|--------------------------|-----|-----|-----|------|-----|-------------|--------------------------|-----|-----|-----|------|------|-----|
| A                        | B   | C   | D   | E    | F   | REEL QTY    | G                        | H   | I   | J   | K    | L    | M   |
| ø1.5                     | 4.0 | 8.0 | 5.5 | 12.0 | 1.7 | -T1 = 1,000 | 2.0                      | ø13 | ø21 | ø80 | ø180 | 13.5 | 2.0 |



### Available Options & Part Identification for VCTCXO Model T5HV<sup>1</sup>

Sample PN: FT5HVBPK25.0-T1

| F          | T5HV                                 | B                              | P  | K  | 25.0                   | -T1   |
|------------|--------------------------------------|--------------------------------|--|--|------------------------|---|
| <b>Fox</b> | <b>Model Number</b><br>T5HV = VCTCXO | <b>Voltage</b><br>B = +3.3V±5% | <b>Stability</b><br>T = ±1.0 PPM<br>S = ±1.5 PPM<br>R = ±2.0 PPM<br>P = ±2.5 PPM | <b>Operating Temperature</b><br>K = -30 to +85°C<br>M = -40 to +85°C | <b>Frequency (MHz)</b> | <b>Values Added Options</b><br>Blank = Bulk<br>T1 = 1,000 pcs |

<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.

### Reliability Test Conditions

Please contact Abracon Quality Assurance department