

#### Features

- Analog Temperature Compensation

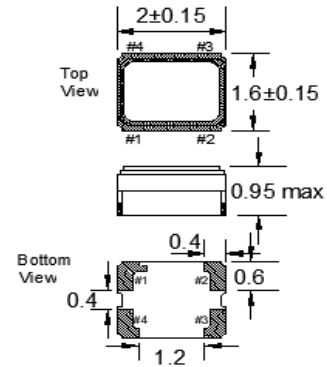
| STANDARD SPECIFICATIONS                                                                                          |                                                        |
|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| PARAMETERS                                                                                                       | MAX<br>(Unless otherwise noted)                        |
| Frequency Range (Fo)                                                                                             | 8.000 ~ 52.000MHz                                      |
| Temperature Range                                                                                                |                                                        |
| Operating (T <sub>OPR</sub> )                                                                                    | -30°C ~ +85°C                                          |
| Storage (T <sub>STG</sub> )                                                                                      | -40°C ~ +85°C                                          |
| Supply Voltage (V <sub>DD</sub> )                                                                                | 1.8V±5% ~ 3.0V±5% <sup>1</sup><br>( See options below) |
| Input Current (I <sub>DD</sub> )                                                                                 |                                                        |
| 8.0 ~ 32.0MHz                                                                                                    | 1.5 mA                                                 |
| >32.0 ~ 52.0MHz                                                                                                  | 2.0 mA                                                 |
| Initial Frequency Tolerance @ 25°C<br>(after reflow) (VCTCXO: V <sub>c</sub> = 0.5V <sub>DD</sub> ) <sup>2</sup> | ±2 PPM                                                 |
| Frequency Stability                                                                                              |                                                        |
| Over Temperature Range                                                                                           | ±0.5 PPM                                               |
| Over Supply Voltage Change (V <sub>DD</sub> ±5%)                                                                 | ±0.1 PPM                                               |
| Over Load Change [10kΩ//10pF]±10%                                                                                | ±0.1 PPM                                               |
| Output Waveform (Clipped Sine)                                                                                   |                                                        |
| Peak-to-Peak Level (V <sub>p-p</sub> )                                                                           | 0.8V min                                               |
| Output Load                                                                                                      | (10kΩ//10pF)±10%                                       |
| Pullability (VCTCXO) <sup>2</sup>                                                                                |                                                        |
| V <sub>DD</sub> = 1.8V: V <sub>c</sub> = 0.9V±0.8V                                                               | ±8 ~ ±13 PPM nom                                       |
| V <sub>DD</sub> = 3.0V: V <sub>c</sub> = 1.5V±1.5V                                                               |                                                        |
| Aging per year                                                                                                   | ±1.0 PPM                                               |
| Reflow Soldering Temp                                                                                            | 260°C / 10 Seconds x 2                                 |
| Moisture Sensitivity Level (MSL)                                                                                 | 1                                                      |
| Termination Finish                                                                                               | Au over Ni                                             |

<sup>1</sup>VCTCXO only operable at specified voltage.

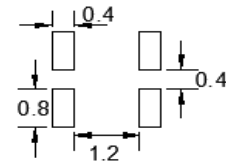
<sup>2</sup>For proper operation, a control voltage (V<sub>c</sub>) must be applied to pin 1 on VCTCXO's.

Note: A DC-Cut capacitor (1000pF) should be connected to the output.

#### DIMENSIONS / MECHANICAL SPECIFICATIONS



#### Recommended Solder Pad Layout



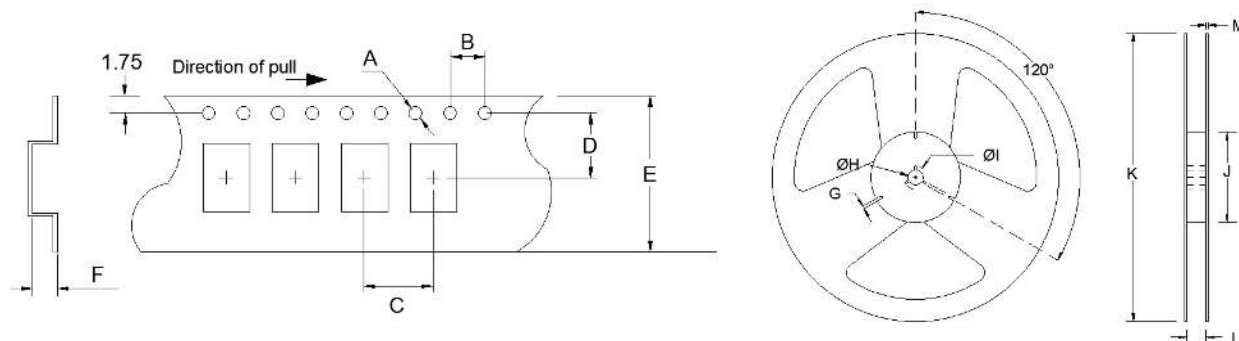
Dimensions are in millimeters.

#### VCTCXO

#1 V<sub>c</sub>                      #3 Output  
#2 GND                    #4 V<sub>DD</sub>

Note: Dimensional drawing is for reference to critical specifications defined by size measurements. Certain non-critical visual attributes, such as side castellations, etc. may vary.

| 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 | 4.0 | 3.5 | 8.0 | 1.4 | -T3 = 3,000<br>-T2 = 2,000<br>-T1 = 1,000 | 2.5                      | ø13 | ø21 | ø60 | ø180 | 9.0 | 1.4 |



## Available Options & Part Identification

Sample PN: **FT1GVKUK38.4-T3**

| F          | T1GV                                 | K                                              | U                               | K                                                | 38.4                   | -T3                                                                                                      |
|------------|--------------------------------------|------------------------------------------------|---------------------------------|--------------------------------------------------|------------------------|----------------------------------------------------------------------------------------------------------|
| <b>Fox</b> | <b>Model Number</b><br>T1GV = VCTCXO | <b>Tolerance</b><br>K = 1.8V±5%<br>D = 3.0V±5% | <b>Stability</b><br>U = ±.05PPM | <b>Operating Temperature</b><br>K = -30 to +85°C | <b>Frequency (MHz)</b> | <b>Values Added Options</b><br>Blank = Bulk<br>T1 = 1,000 pcs<br>T2 = 2,000 pcs<br><b>T3 = 3,000 pcs</b> |

## Reliability Test Conditions

Please contact Abracon Quality Assurance department