

## Features

- Digital Temperature Compensation

STANDARD SPECIFICATIONS	
PARAMETERS	MAX (Unless otherwise noted)
Frequency Range (MHz)	8.0 ~ 40.000
Temperature Range	
Operating (T <sub>OPR</sub> )	(See table below)
Storage (T <sub>STG</sub> )	-40°C ~ +85°C
Supply Voltage (V <sub>DD</sub> ) (±5%)	2.5V; 2.7V; 2.8V; 3.0V; 3.3V
Input Current (I <sub>DD</sub> )	2.0 mA
Initial Frequency Tolerance @ 25°C (after reflow) (T3CV: V <sub>c</sub> = 0.5V <sub>DD</sub> ) <sup>1</sup>	±2.0 PPM
Frequency Stability	
Over Temperature Range	(See table below)
Over Supply Voltage Change (V <sub>DD</sub> ±5%)	±0.3 PPM
Over Load Change [10kΩ//10pF]+-10%	±0.3 PPM
Output Voltage Level	0.8V <sub>p-p</sub> min
Output Load	[10kΩ//10pF]+-10%
Pullability (V <sub>c</sub> = 0.5V <sub>DD</sub> ±1.0V) <sup>1</sup>	±3 ~ ±15 PPM
Aging per year	±1.0 PPM
Startup Time (T <sub>s</sub> )	3.0 mS
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

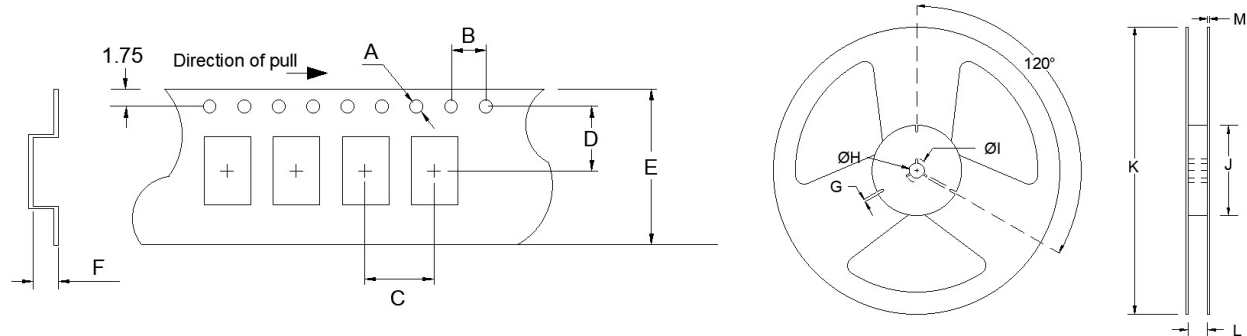
DIMENSIONS / MECHANICAL SPECIFICATIONS													
<p>Top View: 3.2±0.15 mm width, 2.5±0.15 mm height. Pins #1, #2, #3, #4.</p> <p>Side View: 1.0 mm max height.</p> <p>Bottom View: Pin #1 width 0.70 mm, pin #2 width 0.6 mm, pin #3 width 0.84 mm, pin #4 width 0.70 mm. Total width 1.88 mm.</p>													
<p><b>Recommended Solder Pad Layout</b></p> <p>Dimensions in mm: Pad width 1.6 mm, pad height 1.3 mm, pad offset 0.4 mm, pad width 1.0 mm.</p>													
<p><b>Pin Connections</b></p> <table border="1"> <thead> <tr> <th colspan="4">VCTCXO</th> </tr> </thead> <tbody> <tr> <td>#1</td> <td>V<sub>c</sub></td> <td>#3</td> <td>Out</td> </tr> <tr> <td>#2</td> <td>GND</td> <td>#4</td> <td>V<sub>DD</sub></td> </tr> </tbody> </table>		VCTCXO				#1	V <sub>c</sub>	#3	Out	#2	GND	#4	V <sub>DD</sub>
VCTCXO													
#1	V <sub>c</sub>	#3	Out										
#2	GND	#4	V <sub>DD</sub>										
<p>*Dimensional drawing is for reference to critical specifications defined by size measurements. Certain non-critical visual attributes, such as side castellation's, reference pin shape, etc. may vary. All specifications subject to change without notice.</p>													

Available Options by Stability & Operating Temp					
Operating Temperature	±1 PPM	±1.5 PPM	±2 PPM	±2.5 PPM	±15 PPM
-30 ~+85°C	O	O	O	O	NA
-40 ~+85°C	Δ	O	O	O	NA
-40 ~+105°C	X	X	X	X	O

Key: O=Available, X=Not Available, NA=Not Applicable, Δ = Consult Fox Engineering

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

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 -T2 = 2,000 -T1 = 1,000	2.0	ø13	ø21	ø60	ø180	9.0	1.5



Available Options & Part Identification for VCTCXO Model T3CV <sup>1</sup>						
Sample PN: <u>FT3CVBPK25.0-T3</u>						
F	T3CV	B	P	K	25.0	-T3
<b>Fox</b>	<b>Model Number</b> T3CV = VCTCXO	<b>Tolerance</b> B = +3.3V±5% D = +3.0V±5% Q = +2.8V±5% S = +2.7V±5% H = +2.5V±5%	<b>Stability</b> T = ±1.0 PPM S = ±1.5 PPM R = ±2.0 PPM <b>P = ±2.5 PPM</b> F = ±15 PPM	<b>Operating Temperature</b> K = -30 to +85°C M = -40 to +85°C P = -40 to +105°C	<b>Frequency (MHz)</b>	<b>Values Added Options</b> Blank = Bulk T1 = 1,000 pcs T2 = 2,000 pcs <b>T3 = 3,000 pcs</b>

<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