



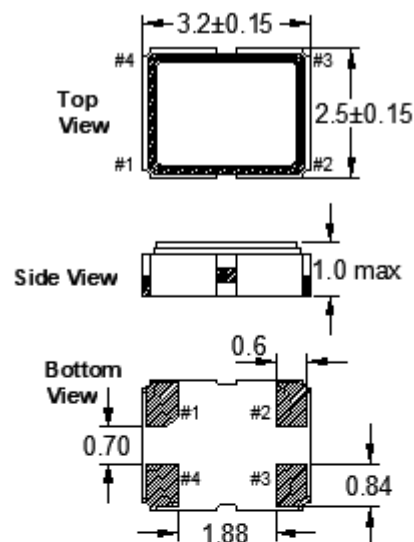
# 3.2x2.5mm C-Sine TCXO/VCTCXO

T3CN/T3CV  
(former FOX923 Series)  
DATASHEET

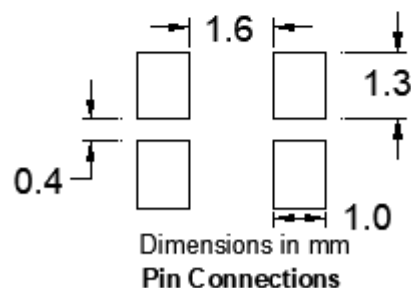
- Digital Temperature Compensation

## ELECTRICAL CHARACTERISTICS

PARAMETERS	MAX (unless otherwise noted)
Frequency Range (MHz)	8.0 ~ 40.000
Temperature Range Operating ( $T_{OPR}$ ) Storage ( $T_{STG}$ )	See table below -40°C ~ +85°C
Supply Voltage ( $V_{DD}$ ) ( $\pm 5\%$ )	2.5V; 2.7V; 2.8V; 3.0V; 3.3V
Input Current ( $I_{DD}$ )	2.0mA
Initial Frequency Tolerance @ 25°C (after reflow) (T3CV: $V_c = 0.5V_{DD}$ ) <sup>1</sup>	$\pm 2.0$ PPM
Frequency Stability Over Temperature Range Over Supply Voltage Change ( $V_{DD} \pm 5\%$ ) Over Load Change [10k $\Omega$ /10pF] $\pm 10\%$	See table below $\pm 0.3$ PPM $\pm 0.3$ PPM
Output Voltage Level	0.8Vp-p min
Output Load	[10k $\Omega$ /10pF] $\pm 10\%$
Pullability (T3CV: $V_c = 0.5V_{DD} \pm 1.0V$ ) <sup>1</sup>	$\pm 3 \sim \pm 15$ PPM
Aging per year	$\pm 1.0$ PPM
Startup Time ( $T_s$ )	3.0mS
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



## Recommended Solder Pad Layout



## Pin Connections

TCXO	VCTCXO
#1 GND #3 Out	#1 Vc #3 Out
#2 GND #4 $V_{DD}$	#2 GND #4 $V_{DD}$

Operating Temperature	$\pm 1$ PPM	$\pm 1.5$ PPM	$\pm 2$ PPM	$\pm 2.5$ PPM	$\pm 15$ PPM
-30 ~ +85°C	O	O	O	O	NA
-40 ~ +85°C	$\Delta$	O	O	O	NA
-40 ~ +105°C	X	X	X	X	O

Key: O=Available, X=Not Available, NA=Not Applicable,  $\Delta$  = Consult Fox Engineering

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

\*Dimensional drawing is for reference to critical specifications defined by size measurements.

Certain non-critical visual attributes, such as side castellations, reference pin shape, etc. may vary  
All specifications subject to change without notice.

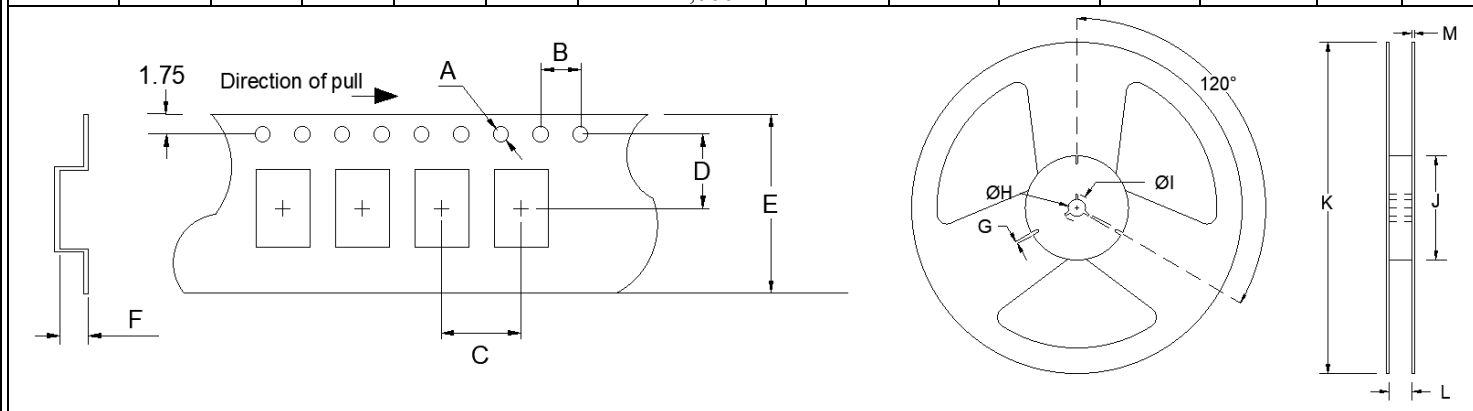




# 3.2x2.5mm C-Sine TCXO/VCTCXO

**T3CN/T3CV**  
(former FOX923 Series)  
**DATASHEET**

Tape Specifications (millimeters)							Reel Specifications (millimeters)						
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 TCXO Model T3CN/T3CV<sup>1</sup>

### F T3CN B P K 25.0

F	T3CN	B	P	K	25.0
<b>FOX</b>	<b>Model Number</b> T3CN = TCXO T3CV = VCTCXO	<b>Voltage</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 P = ±2.5 PPM 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>

<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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Title / Description: <b>T3CN/T3CV SERIES STANDARD SPECIFICATIONS</b>			
Drawing Number: T3CN-T3CV-DOC-1		Size: A	
Part Number:		Cage: <b>61429</b>	
Draftsperson: BEC	Approved: MAJ	Revision Date: 09/03/2019	

# Mouser Electronics

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