HCMOS 3.2x2.5mm SMD Oscillator

O3HL

(former F330A Series)

DATASHEET

- HCMOS Output
- Stabilities to ±100 PPM
- Temperature Ranges as wide as -40ºC to +85ºC
- Supply Voltage: 3.3V

3.3V ELECTRICAL CHARACTERISTICS

PARAMETERS	MAX (unless otherwise noted)
Frequency Range (F_O)	1.800 ~ 50.000 MHz
Storage Temperature Range (T_{STG})	-55 ~ +125ºC
Supply Voltage (V_{DD})	3.3V±5%
Input Current (I_{DD}) 1.800 ~ 32.000 MHz 32.000+ ~ 50.000 MHz	 2.5 mA 3.5 mA
Standby Current	10 µA
Output Symmetry (50% V_{DD})	45% ~ 55%
Rise/Fall Time (10%/90% V_{DD} Levels) (T_R/T_F)	12 nS
Output Voltage (V_{OL}) (V_{OH})	10% V_{DD} 90% V_{DD} Min
Output Load (HCMOS)	15 pF
Start-up Time (T_S)	5 mS
Output Disable Time [1]	150 nS
Output Enable Time [1]	5 mS

ENABLE/DISABLE FUNCTION	
Pin1	Output (pin 3)
OPEN [1]	Active
'1' Level $V_{IH} \geq 70\%V_{DD}$	Active
'0' Level $V_{IL} \leq 30\%V_{DD}$	High Z

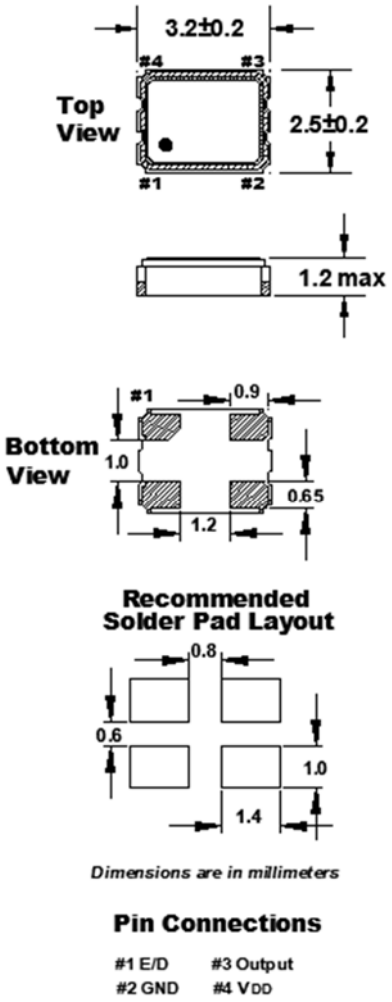
- Available Options by Stability & Operating Temp for 3.3V

Frequency Stability	Operating Temperature (ºC)	Frequency Range (MHz)
±100PPM[2]	-10 ~ +70	1.800 ~ 50.000 MHz
±100PPM[2]	-40 ~ +85	1.800 ~ 50.000 MHz
±50PPM[2]	-10 ~ +70	1.800 ~ 50.000 MHz
±50PPM[2]	-40 ~ +85	1.800 ~ 50.000 MHz
±25PPM[2]	-10 ~ +70	1.800 ~ 50.000 MHz
±25PPM[3]	-40 ~ +85	1.800 ~ 50.000 MHz
±20PPM[3]	-10 ~ +70	1.800 ~ 50.000 MHz

[1] An internal pull-up resistor from pin 1 to pin 4 allows active output if pin 1 is left open.
[2] Inclusive of 25°C tolerance, operating temperature range, input voltage change, load change, shock, vibration, reflow, and one-year aging.
[3] Inclusive of 25°C tolerance and operating temperature range.

Title / Description: O3HL SERIES STANDARD SPECIFICATIONS		
Drawing Number: O3HL-DOC-1		**Size:** A
Part Number:		**Cage:** 61429
Draftsperson: DG	**Approved:** BEC	**Revision Date:** 06/24/2019

DIMENSIONS / MECHANICAL SPECIFICATIONS



Dimensions are in millimeters

Pin Connections

#1 E/D	#3 Output
#2 GND	#4 V_{DD}

Maximum Soldering Temp / Time	260°C/10 Seconds x2
Moisture Sensitivity Level (MSL)	1
Termination Finish	Au over Ni
Seal Method	Seam
Lead (Pb) Free	Yes
ROHS/REACH Compliant	Yes

Notes:
*A 0.01µF capacitor should be placed between V_{DD} (Pin 4) and GND (Pin2) to minimize power supply line noise.
*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.

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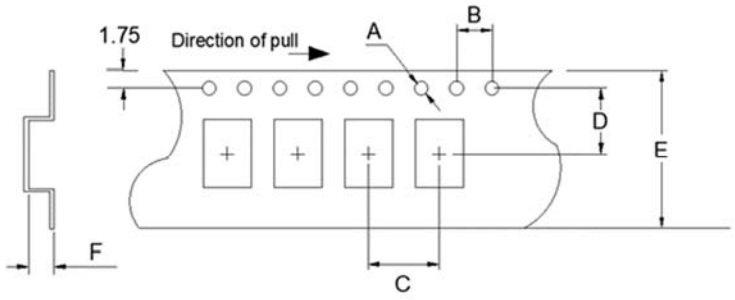
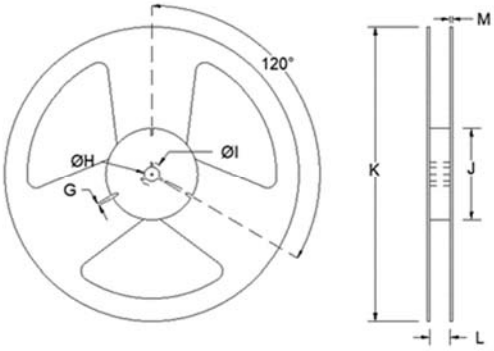
Tape Specifications (millimeters)								Reel Specifications (millimeters)						
A	B	C	D	E	F	Reel Qty		G	H	I	J	K	L	M
Ø1.55	4.0	4.0	3.5	8.0	1.3	-T3 = 3,000 -T2 = 2,000 -T1 = 1,000		2.0	Ø13	Ø21	Ø60	Ø180	9.0	1.2





Available Options & Part Identification*

Example: F O3HL B B M 25.0

F	O3HL	B	B	M	25.0
Fox	**Model Number**	**Voltage**	**Stability**	**Operating Temperature**	**Frequency(MHz)**
		B = 3.3V±5%	A = ±100 PPM **B = ±50 PPM** D = ±25 PPM E = ±20 PPM	E = -10 to +70ºC **M = -40 to +85ºC**	

*Not all frequencies in the frequency range, or every combination of stability, temp range, and voltage available. See stabilities and op temps for each V_{DD}.

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