

## **HCMOS 7x5mm SMD Oscillator**

O7HH (former F3345 Series) DATASHEET

- HCMOS Output
- Stabilities to ±20 PPM
- Temperature Ranges as wide as -40°C to +85°C
- Supply Voltages: 5.0V

5.0V ELECTRICAL CHARACTERISTICS						
PARAMETERS	MAX (unless otherwise noted)					
Frequency Range (F <sub>O</sub> )	1 ~ 125 MHz					
Storage Temperature Range (T <sub>STG</sub> )	-55 ~ +125°C					
Supply Voltage (V <sub>DD</sub> )	5.0 ±10%					
Input Current (I <sub>DD</sub> )						
01.000 ~ 25.000 MHz	25 mA					
25.000+ ~ 50.000 MHz	40 mA					
50.000+ ~ 67.000 MHz	60 mA					
67.000+ ~ 80.000 MHz	73 mA					
80.000+ ~ 125.000 MHz	90 mA					
Output Symmetry (50% V <sub>DD</sub> )	45 % ~ 55 %					
Rise/Fall Time (10%/90% $V_{DD}$ Levels) ( $T_R/T_F$ )						
1.000 ~ 125.000 MHz	7 nS					
Output Voltage (V <sub>OL</sub> )	10 % V <sub>DD</sub>					
$(V_{OH})$	90 % V <sub>DD</sub> Min					
Output Current (I <sub>OL</sub> )	16 mA Min					
(I <sub>OH</sub> )	-16 mA Min					
Output Load (HCMOS)	50 pF					
Start-up Time (T <sub>S</sub> )	10 mS					
Output Disable Time <sup>1</sup>	100 nS					
Output Enable Time <sup>1</sup>	100 nS					

ENABLE / DISABLE FUNCTION				
Pin1 Output (pin 3)				
OPEN <sup>1</sup>	Active			
'1' Level $V_{IH} \ge 70\% V_{DD}$	Active			
'0' Level $V_{IL} \le 30\% V_{DD}$	High Z			

• Available Options by Stability & Operating Temp for 5.0V <sup>2</sup>						
Frequency Stability <sup>2</sup>	Frequency Range (MHz)					
±100PPM	-10 ~ +70	1.000 ~ 125.000				
±100PPM	-40 ~ +85	1.000 ~ 80.000				
±50PPM	-10 ~ +70	1.000 ~ 80.000				
±50PPM	-40 ~ +85	1.000 ~ 80.000				
±25PPM	-10 ~ +70	1.000 ~ 80.000				
±25PPM	-40 ~ +85	1.000 ~ 80.000				
±20PPM*	-10 ~ +70	1.000 ~ 80.000				

7.5 Max  #4 Top View #5.2 Max #2  Dot denotes pin 1
1.4±0.2 — 1.5 Max  1.4±0.2 — 2.6±0.2  #4 #3 2.6±0.2
Recommended Solder Pad Layout
Pin Connections #1 E/D #3 Output #2 GND #4 Vpp  All dimensions are in millimeters

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

<sup>&</sup>lt;sup>1</sup> An internal pull-up resistor from pin 1 to pin 4 allows active output if pin 1 is left open

A  $0.01\mu F$  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

24	Title / Description: O7HH SERIE	S STANDARD SPECIFICATION	ONS
FÖX	Drawing Number: 101164	Size: A	
FOX	Part Number:	Cage: 61429	
© Copyright 2017 Fox Electronics, All rights reserved	Draftsperson: MK	Approved: RB	<b>Revision Date:</b> 08/23/2017

<sup>&</sup>lt;sup>2</sup> Inclusive of 25°C tolerance, operating temperature range, input voltage change, load change, reflow, and one year aging. \*Excludes Shock/Vibration.



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Tape Specifications (millimeters)							Reel	Specifi	cations	(millime	ters)			
A	В	C	D	E	F	Std Reel Qty		G	H	I	J	K	L	M
Ф1.5	4.0	8.0	7.5	16.0	2.15	2,000		2.0	Ф13	Ф21	Ф80	Ф255	17.5	2.0
2	0 0	000	<u>A</u>	-	B C	↓ D ↓ E	L	] ( F	9	H	G	120*	J K	

Available Options & Part Identification* Example: <u>F O7HH A B M 25.0</u>									
F	F 07HH A B M 25.0								
Fox	Model Number	Voltage	Stability	Operating	Frequency				
		A = 5V±10%	A = 100 PPM	Temperature					
			B = 50 PPM	E = -10 to +70°C					
			D = 25 PPM	M = -40 to +85°C					
			E = 20 PPM						

<sup>\*</sup>Not all frequencies in the frequency range, or every combination of stability, temp range, and voltage available. See stabilities and op temps on page 1.



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