

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						
TAKAWETEKS	(unless otherwise noted)						
Frequency Range (F _O)	1 ~ 125 MHz						
Storage Temperature Range (T _{STG})	-55 ~ +125°C						
Supply Voltage (V _{DD})	5.0 ±10%						
Input Current (I _{DD})							
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 _{DD})	45 % ~ 55 %						
Rise/Fall Time (10%/90% V_{DD} Levels) (T_R/T_F)							
1.000 ~ 125.000 MHz	7 nS						
Output Voltage (V _{OL})	10 % V _{DD}						
(V_{OH})	90 % V _{DD} Min						
Output Current (I _{OL})	16 mA Min						
(I_{OH})	-16 mA Min						
Output Load (HCMOS)	50 pF						
Start-up Time (T_s)	10 mS						
Output Disable Time ¹	100 nS						
Output Enable Time ¹	100 nS						

ENABLE / DISABLE FUNCTION					
Pin1	Output (pin 3)				
OPEN ¹	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 5.0V² 						
Frequency Operating Stability ² Temperature (°C)		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

¹ 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

æ4	Title / Description: O7HH SERIE	S STANDARD SPECIFICATION	ONS
FÖX	Drawing Number: 101164	Size: A	
FOX	Part Number:	Cage: 61429	
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² Inclusive of 25°C tolerance, operating temperature range, input voltage change, load change, reflow, and one year aging. *Excludes Shock/Vibration. Notes:



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Tape Specifications (millimeters)								Reel	Specifi	cations	(millime	ters)		
A	В	С	D	E	F	Std Reel Qty		G	Н	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
	0 0	000	<u>A</u>		B C	→	L] (F		H	G	120*	J K	

Available Options & Part Identification* Example: <u>F O7HH A B M 25.0</u>							
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				
WAY . 11 C		0.17	1 1				

^{*}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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