



HCMOS 7x5mm SMD Oscillator

O7HH
(former F3345 Series)
DATASHEET

- HCMOS Output
- Stabilities to ± 20 PPM
- Temperature Ranges to -40°C to $+85^{\circ}\text{C}$
- Supply Voltage: 5.0V

ELECTRICAL CHARACTERISTICS

PARAMETERS	MAX (unless otherwise noted)
Frequency Range (F_0)	1 ~ 125MHz
Storage Temperature Range (T_{STG})	$-55 \sim +125^{\circ}\text{C}$
Supply Voltage (V_{DD})	5.0V $\pm 10\%$
Input Current (I_{DD})	
1.000 ~ 25.000MHz	25 mA
25.000+ ~ 50.000MHz	40 mA
50.000+ ~ 67.000MHz	60 mA
67.000+ ~ 80.000MHz	73 mA
80.000+ ~ 125.000MHz	90 mA
Output Symmetry (50% V_{DD})	1 ~ 80MHz 80+ ~ 125MHz
	45/55% 40/60%
Rise/Fall Time (10%/90% V_{DD} Levels) (T_R/T_F)	
1 ~ 80.000MHz	7nS
80+ ~ 100MHz	5nS
100+ ~ 125MHz	4nS
Output Voltage (V_{OL}) (V_{OH})	10% V_{DD} 90% V_{DD} Min
Output Current (I_{OL}) (I_{OH})	16mA Min -16mA Min
Output Load (HCMOS)	50pF
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 $V_{IH} \geq 70\%V_{DD}$	Active
'0' Level $V_{IL} \leq 30\%V_{DD}$	High Z

• Available Options by Stability & Operating Temperature

Frequency Stability	Operating Temperature ($^{\circ}\text{C}$)	Frequency Range (MHz)
$\pm 100\text{PPM}^2$	-10 ~ +70	1.000 ~ 125.000
$\pm 100\text{PPM}^2$	-40 ~ +85	1.000 ~ 125.000
$\pm 50\text{PPM}^2$	-10 ~ +70	1.000 ~ 125.000
$\pm 50\text{PPM}^2$	-40 ~ +85	1.000 ~ 125.000
$\pm 25\text{PPM}^2$	-10 ~ +70	1.000 ~ 125.000
$\pm 25\text{PPM}^3$	-40 ~ +85	1.000 ~ 80.000
$\pm 20\text{PPM}^3$	-10 ~ +70	1.000 ~ 80.000

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, reflow, one-year aging, shock, and vibration.

³ Inclusive of 25°C tolerance, operating temperature range.

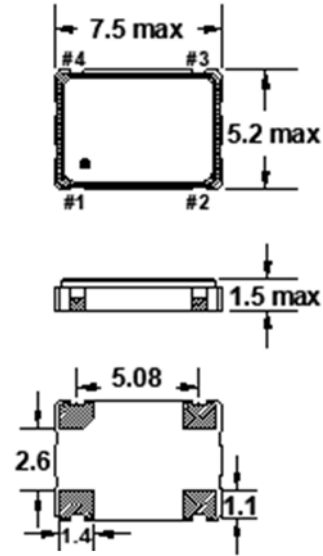




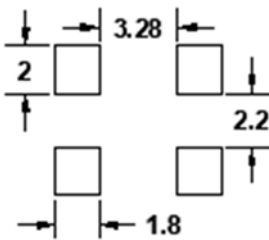
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DIMENSIONS / MECHANICAL SPECIFICATIONS



Recommended Solder Pad Layout



Dimensions in mm

Pin Connections

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

Maximum Soldering Temp / Time	260°C / 10 Seconds x 2
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

	Title / Description: O7HH SERIES STANDARD SPECIFICATIONS	
	Drawing Number: O7HH-DOC-1	Size: A
	Part Number:	Cage: 61429
	Draftsperson: BEC	Approved: MAJ
		Revision Date: 10/3/2019

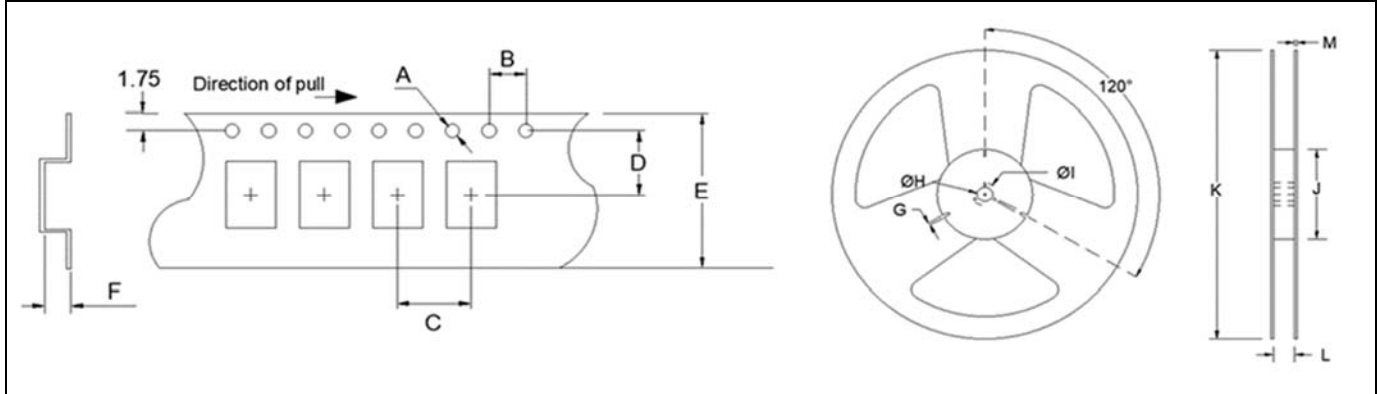
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Tape Specifications (millimeters)							Reel Specifications (millimeters)						
A	B	C	D	E	F	Reel Qty	G	H	I	J	K	L	M
Ø1.5	4.0	8.0	7.5	16.0	2.15	-T1 = 1,000 -T2 = 2,000	2.0	Ø13	Ø21	Ø80	Ø255	17.5	2.0



Available Options & Part Identification*

Example: F O7HH A B M 25.0

F	O7HH	A	B	M	25.0
Fox	Model Number	Voltage	Stability	Operating Temperature	Frequency (MHz)
		A = 5V±10%	A = ±100 PPM B = ±50 PPM D = ±25 PPM E = ±20 PPM	E = -10 to +70°C M = -40 to +85°C	

*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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