FO3HL

(Former F330A)

3.2mm x 2.5mm HCMOS SMD Oscillator

Features

- HCMOS Output
- Stabilities to ±100 PPM
- Temperature Ranges as wide as -40°C to +85°C
- Supply Voltages: 3.3V

3.3V ELECTRICAL CHARACTERISTICS	
PARAMETERS	**MAX (Unless otherwise noted)**
Frequency Range (F_O)	1.800~ 50.000 MHz
Temperature Range Storage (T_{STG})	 -55°C ~ +125°C
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	10µA
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

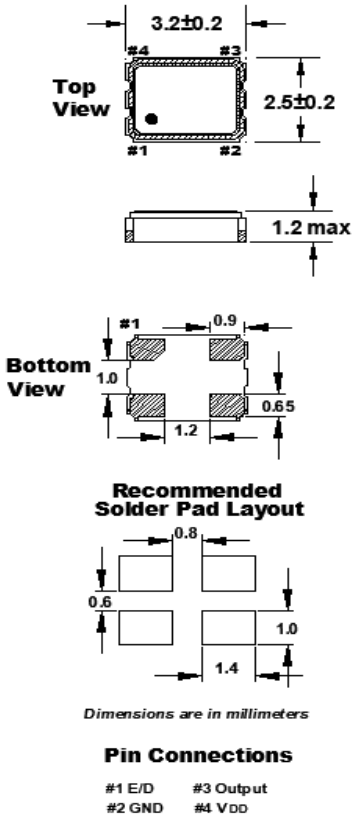
Available Options by Stability & Operating Temp for 3.3V		
Frequency Stability	**Operating Temperature (°C)**	**Frequency Range (MHz)**
±100PPM[2]	-10 ~ +70	1.800 ~ 50.000 MHz
±100PPM[2]	-40 ~ +85	1.800 ~ 50.000 MHz
±50PPM[2]	-10 ~ +70	1.800 ~ 50.000 MHz
±50PPM[2]	-40 ~ +85	1.800 ~ 50.000 MHz
±25PPM[2]	-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.

DIMENSIONS / MECHANICAL SPECIFICATIONS



Note:
1, A 0.01µF capacitor should be placed between V_{DD} (Pin 4) and G_{ND} (Pin2) to minimize power supply line noise.
2, Dimensional drawing is for reference to critical specifications defined by size measurements. Certain non-critical visual attributes, such as side castellation's, etc. may vary.

STANDARD SPECIFICATIONS	
PARAMETERS	**MAX (Unless otherwise noted)**
Maximum Soldering Temp / Time	260°C / 10 Seconds x 2
Moisture Sensitivity Level (MSL)	N/A
Termination Finish	Au over Ni
Seal Method	Seam
Lead (Pb) Free	Yes
RoHS /REACH Compliant (latest version)	Yes

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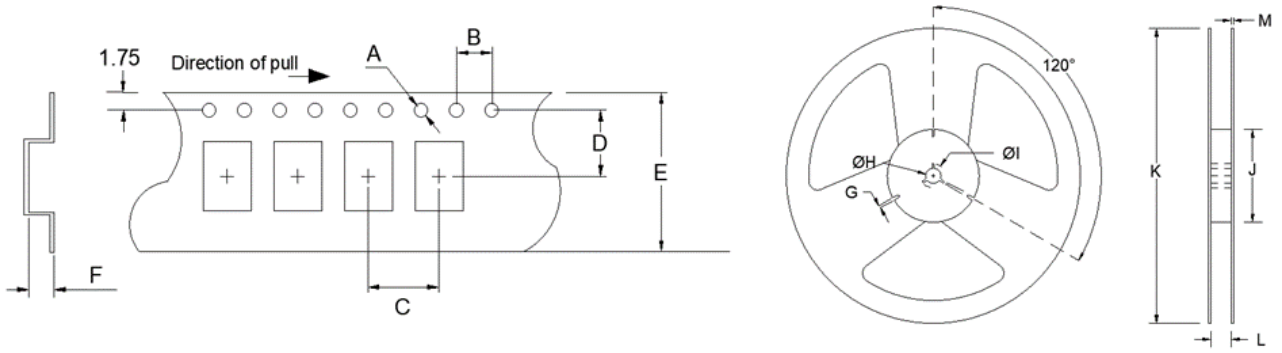
HCMOS SMD Oscillator

TAPE SPECIFICATIONS (mm)							REEL SPECIFICATIONS (mm)						
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*

Sample PN: FO3HLBBM25.0-T3

F	O3HL	B	B	M	25.0	-T3
Fox	**Model Number**	**Voltage** **B = 3.3V±5%**	**Stability** A = ±100 PPM **B = ±50 PPM** D = ±25 PPM E = ±20 PPM	**Operating Temperature** E = -10 to +70˚C **M = -40 to +85˚C**	**Frequency (MHz)**	**Values Added Options** Blank = Bulk T1 = 1,000 pcs T2 = 2,000 pcs **T3 = 3,000 pcs**

* 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}.

Reliability Test Conditions
Please contact Abracon Quality Assurance department

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ABRACON:

FO3HLBDM12.0-T1 FO3HLBDM25.0-T1 FO3HLBAM26.0-T2 FO3HLBAM26.0-T1 FO3HLBBM12.0-BULK FO3HLBBM12.0-T1 FO3HLBDM27.0-T1 FO3HLBBM48.0-T1 FO3HLBDM27.0-BULK FO3HLBBM48.0-T2 FO3HLBBM12.0-T2 FO3HLBBM20.0-T1 FO3HLBBM50.0-T1 FO3HLBDM12.0-BULK FO3HLBBM20.0-T2 FO3HLBBM20.0-BULK FO3HLBBM50.0-T2 FO3HLBDM25.0-BULK FO3HLBBM36.864-BULK FO3HLBAM33.333-T1 FO3HLBAM33.333-T2 FO3HLBBM36.864-T1 FO3HLBBM36.864-T2