

Features

- HCMOS Output
- Stabilities to ± 100 PPM
- Temperature Ranges as wide as -40°C to $+85^{\circ}\text{C}$
- 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})	$-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$
Supply Voltage (V_{DD})	$3.3\text{V} \pm 5\%$
Input Current (I_{DD})	
1.800 ~ 32.000 MHz	2.5 mA
$>32.000 \sim 50.000$ MHz	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})	10 % V_{DD}
(V_{OH})	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

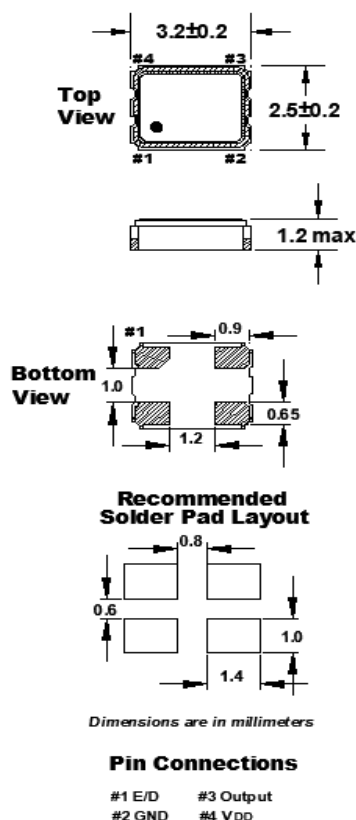
Available Options by Stability & Operating Temp for 3.3V		
Frequency Stability	Operating Temperature ($^{\circ}\text{C}$)	Frequency Range (MHz)
$\pm 100\text{PPM}^2$	$-10 \sim +70$	1.800 ~ 50.000 MHz
$\pm 100\text{PPM}^2$	$-40 \sim +85$	1.800 ~ 50.000 MHz
$\pm 50\text{PPM}^2$	$-10 \sim +70$	1.800 ~ 50.000 MHz
$\pm 50\text{PPM}^2$	$-40 \sim +85$	1.800 ~ 50.000 MHz
$\pm 25\text{PPM}^2$	$-10 \sim +70$	1.800 ~ 50.000 MHz
$\pm 25\text{PPM}^3$	$-40 \sim +85$	1.800 ~ 50.000 MHz
$\pm 20\text{PPM}^3$	$-10 \sim +70$	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:

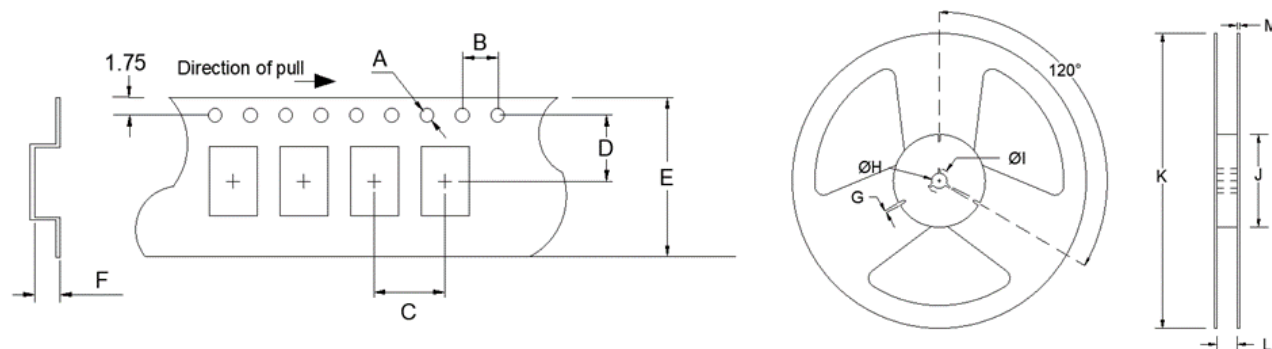
1, A 0.01μF capacitor should be placed between V_{DD} (Pin 4) and G_{ND} (Pin2) to minimize power supply line noise.

2, Dimensional drawing is for reference to critical specifications defined by size measurements. Certain non-critical visual attributes, such as side castellations, 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

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
<u>Fox</u>	<u>Model Number</u>	<u>Voltage</u> B = 3.3V±5%	<u>Stability</u> A = ±100 PPM B = ±50 PPM D = ±25 PPM E = ±20 PPM	<u>Operating Temperature</u> E = -10 to +70°C M = -40 to +85°C	<u>Frequency (MHz)</u>	<u>Values Added Options</u> 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

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