Ultra-Low Jitter 5x3.2mm SMD Oscillator

O5PU

DATASHEET

- Ultra-Low Jitter (down to 0.3pS max)
- LV-PECL
- Temperature Ranges to -40ºC to +85ºC
- Supply Voltages: 3.3V; 2.5V

ELECTRICAL CHARACTERISTICS		
PARAMETERS	MAX (unless otherwise noted)	
Supply Voltage (V_{DD})	3.3V±5%	2.5V±5%
Frequency Range (F_O)	50 ~ 320MHz	
Storage Temperature Range (T_{STG})	-55 ~ +125°C	
Input Current (I_{DD}) 50 ~ 159.999999MHz 160 ~ 320MHz	 88 mA 100 mA	
Standby Current	15 µA	
Output Symmetry (50% V_{p-p})	45% ~ 55%	
Rise Time (20% ~80% V_{p-p} Levels) (T_R)	1 nS	
Fall Time (80% ~ 20% V_{p-p} Levels) (T_F)	1 nS	
Output Voltage (V_{OL}) (V_{OH})	1.68V 2.275V Min	1.095V 1.475V Min
Output Load	50 Ohms to Vdd-2.0V	
Start-up Time (T_S)	10 mS	
Phase Jitter, RMS (12kHz to 20MHz BW) 50 ~ 124.999999MHz 125 ~ 169.999999MHz 170 ~ 199.99999MHz 200 ~ 320MHz	 0.5 pS 0.3 pS 0.5 pS 0.3 pS	

ENABLE / DISABLE FUNCTION	
Pin 1	Out 1 (Pin 4), Out 2 (Pin 5)
OPEN[1]	Active
'1' Level $V_{IH} \geq 70\% V_{DD}$	Active
'0' Level $V_{IL} \leq 30\% V_{DD}$	High Z

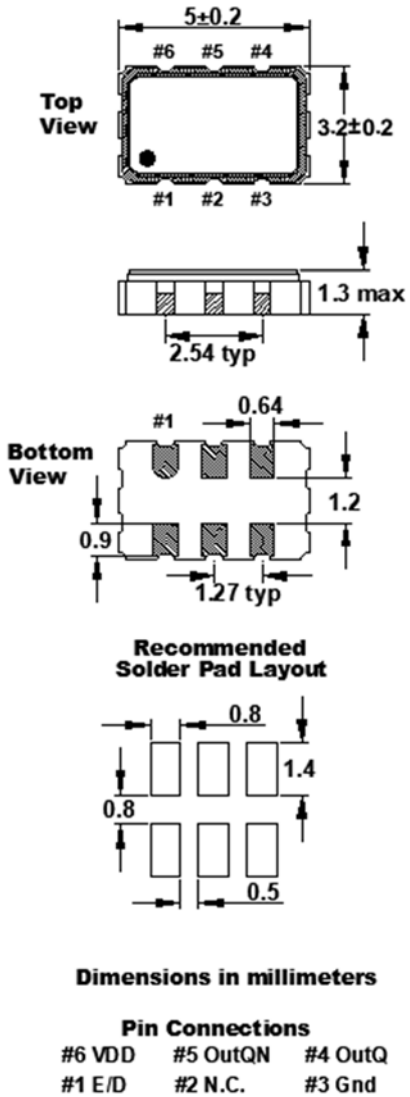
Frequency Stability	Operating Temperature (ºC)
±100PPM[2]	-20 ~ +70
±100PPM[2]	-40 ~ +85
±50PPM[2]	-20 ~ +70
±50PPM[2]	-40 ~ +85
±25PPM[2]	-20 ~ +70
±25PPM[3]	-40 ~ +85
±20PPM[3]	-20 ~ +70

[1] An internal pull-up resistor from pin 1 to pin 6 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.

© Copyright 2020 Fox Electronics. All rights reserved

Title / Description: O5PU SERIES STANDARD SPECIFICATIONS			
Drawing Number: O5PU-DOC-1			**Size:** A
Part Number:			**Cage:** 61429
Draftsperson: BEC	**Approved:** MAJ		**Revision Date:** 01/13/2020

DIMENSIONS / MECHANICAL SPECIFICATIONS



Dimensions in millimeters

Pin Connections

#6 VDD	#5 OutQN	#4 OutQ
#1 E/D	#2 N.C.	#3 Gnd

Maximum Soldering Temp / Time	260°C / 10 Seconds x2
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 6) and GND (Pin3) 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

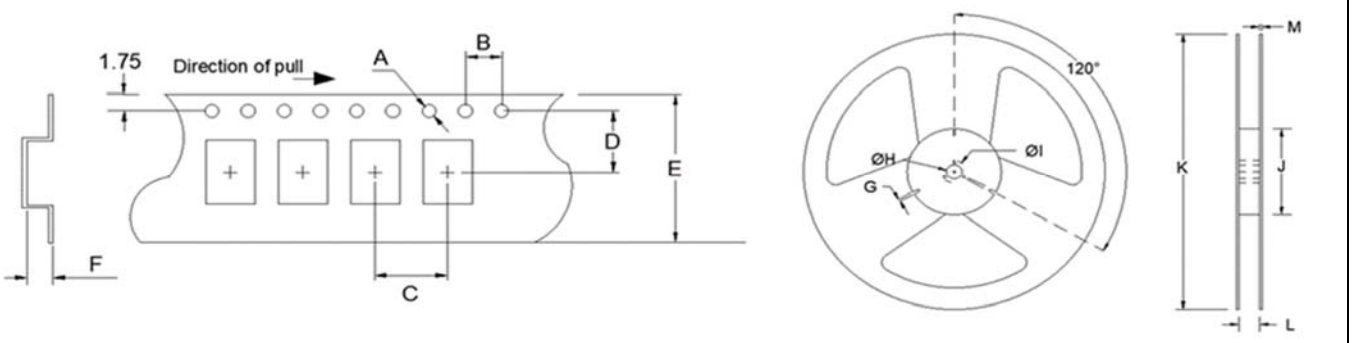
© Copyright 2020 Fox Electronics. All rights reserved

Title / Description: O5PU SERIES STANDARD SPECIFICATIONS			
Drawing Number: O5PU-DOC-1			**Size:** A
Part Number:			**Cage:** 61429
Draftsperson: BEC	**Approved:** MAJ		**Revision Date:** 01/13/2020

Ultra-Low Jitter 5x3.2mm SMD Oscillator O5PU

DATASHEET

Tape Specifications (millimeters)								Reel Specifications (millimeters)						
A	B	C	D	E	F	Reel Qty		G	H	I	J	K	L	M
Ø1.55	4.0	8.0	5.5	16.0	1.4	-T1 = 1,000		2.0	Ø13	Ø21	Ø60	Ø180	13.0	2.0



Available Options & Part Identification*

Example: F O5PU B B M 125.0

F	O5PU	B	B	M	125.0
Fox	**Model Number**	**Voltage**	**Stability**	**Operating Temperature**	**Frequency**
		B = 3.3V±5%	A = ±100 PPM	F = -20 to +70ºC	
		H = 2.5V±5%	**B = ±50 PPM**	**M = -40 to +85°C**	
			D = ±25 PPM		
			E = ±20 PPM		

*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}.

Corporate Headquarters
5570 Enterprise Parkway
Fort Myers, FL 33905
http://www.FOXONLINE.com

Sales
1-888-GET-2-FOX (1-888-438-2369)
or
1-239-693-0099
http://www.FOXONLINE.com/repdisty

Tech Support
http://www.FOXONLINE.com/email

Product use: Fox Electronics reserves the right to modify the products and/or specifications described herein at any time and at Fox Electronics' sole discretion. All information in this document, including descriptions of product features and performance, is subject to change without notice. Performance specifications and the operating parameters of the described products are determined in the independent state and are not guaranteed to perform the same way when installed in customer products. The information contained herein is provided without representation or warranty of any kind, whether express or implied, including, but not limited to, the suitability of Fox Electronics' products for any particular purpose, an implied warranty of merchantability, or non-infringement of the intellectual property rights of others. This document is presented only as a guide and does not convey any license under intellectual property rights of Fox Electronics or any third parties.
Fox Electronics' products are not intended for use in applications involving extreme environmental conditions or in life support systems or similar devices where the failure or malfunction of a Fox Electronics product can be reasonably expected to significantly affect the health or safety of users. Anyone using a Fox Electronics product in such a manner does so at their own risk, absent an express, written agreement by Fox Electronics.
Fox Electronics and the Fox logo are registered trademarks of Fox Electronics. Product specification is subject to change without notice. Other trademarks and service marks used herein, including protected names, logos and designs, are the property of Fox Electronics or their respective third-party owners.

© Copyright 2020 Fox Electronics. All rights reserved

Title / Description: O5PU SERIES STANDARD SPECIFICATIONS			
Drawing Number: O5PU-DOC-1			**Size:** A
Part Number:			**Cage:** 61429
Draftsperson: BEC	**Approved:** MAJ		**Revision Date:** 01/13/2020