



3.2x2.5mm 32.768 kHz SMD Oscillator

O3HF

(former F32K Series)

DATASHEET

- HCMOS Output
- Stability of -170 ~ +10 PPM
- Temperature Range of -40°C to +85°C

ELECTRICAL CHARACTERISTICS

PARAMETERS	MAX (unless otherwise noted)
Frequency Range (Fo)	32.768kHz
Temperature Range	
Operating (TOPR)	-40 ~ +85°C
Storage (TSTG)	-55 ~ +125°C
Frequency Tolerance @ 25°C	+5 ± 20 PPM
Frequency Stability, ref. 25°C	-170 ~ +10PPM
Supply Voltage (VDD)	3.3V±10% (Std.) 1.5V~5.5V (Usable)
Input Current (IDD) (no load)	1.5 uA
Output Symmetry (50% VDD)	40% ~ 60%
Rise/Fall Time (TR/TF) (20%/80% VDD Levels)	200 nS
Output Voltage (VOL) (VOH)	0.4V Max VDD - 0.4V Min
Output Load (HCMOS)	15 pF
Start-up Time (TS) (VDD) = 1.5 ~ 5.5V, Ta = -40°C ~ +85°C	1 Second
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

ENABLE / DISABLE FUNCTION

Pin1	Output (pin 3)
OPEN ¹	Active
'1' Level $V_{IH} \geq 80\%V_{DD}$	Active
'0' Level $V_{IL} \leq 20\%V_{DD}$	High Z

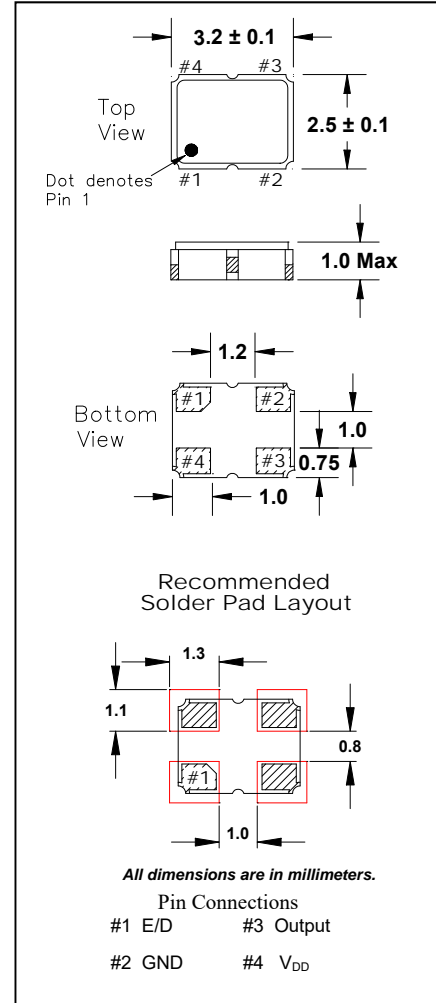
¹ An internal pull-up resistor from pin 1 to pin 4 allows active output if pin 1 is left open

Notes:

*A 0.01µF capacitor should be placed between VDD (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: O3HF SERIES STANDARD SPECIFICATIONS			
Drawing Number: 100565		Size: A	
Part Number:		Cage: 61429	
Draftsperson: MAJ	Approved: BEC	Revision Date: 4/11/2019	



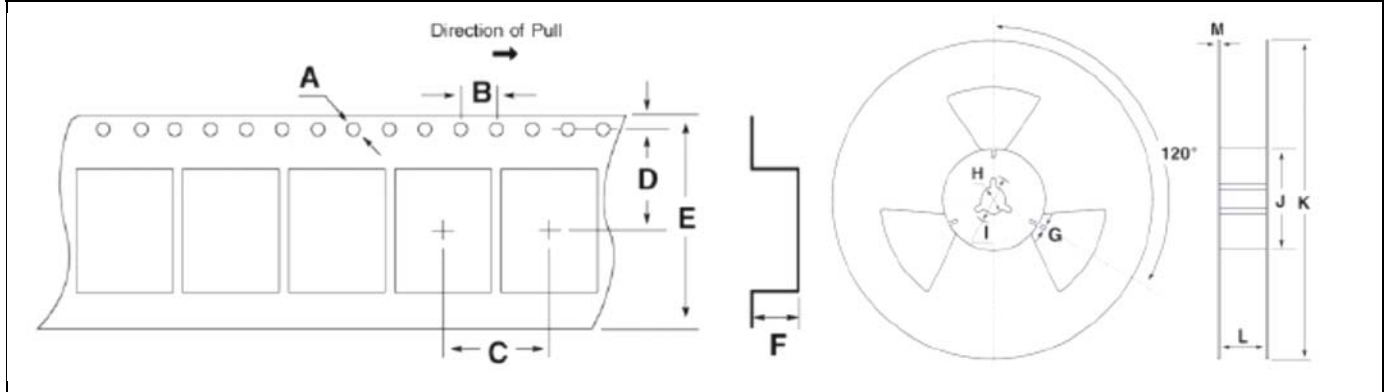
3.2x2.5mm 32.768 kHz SMD Oscillator

O3HF

(former F32K Series)

DATASHEET

Tape Specifications (millimeters)							Reel Specifications (millimeters)						
A	B	C	D	E	F	Reel Qty. Options	G	H	I	J	K	L	M
Φ1.5	4.0	4.0	3.5	8.0	1.4	-T3 = 3,000* *default -T1 = 1,000	2.5	Φ13	Φ22	Φ60	Φ178	8.0	1.6



Available Options & Part Identification

Example: **F O3HF C Y M 0.032768**

F	O3HF	C	Y	M	0.032768
Fox	Model Number	Voltage C = 3.3V ± 10%	Stability Y = -170 ~ +10PPM	Operating Temperature M = -40 to +85°C	Frequency (MHz)



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.

	Title / Description: O3HF SERIES STANDARD SPECIFICATIONS		
	Drawing Number: 100565		Size: A
	Part Number:		Cage: 61429
	Draftsperson: MAJ	Approved: BEC	Revision Date: 4/11/2019

© Copyright 2019 Fox Electronics. All rights reserved

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Standard Clock Oscillators](#) category:

Click to view products by [Fox](#) manufacturer:

Other Similar products are found below :

[EP1400SJTSC-125.000M](#) [601137](#) [601252](#) [CSX750FBC-24.000M-UT](#) [CSX750FBC-33.333M-UT](#) [CSX750FCC-3.6864M-UT](#) [F335-12](#) [F335-25](#) [F535L-50](#) [DSC506-03FM2](#) [ASA-20.000MHZ-L-T](#) [ASA-25.000MHZ-L-T](#) [ASA-27.000MHZ-L-T](#) [ASV-20.000MHZ-LR-T](#) [ECS-2018-160-BN-TR](#) [EL13C7-H2F-125.00M](#) [MXO45HS-2C-66.6666MHZ](#) [NBXDBB017LN1TAG](#) [NBXHBA019LN1TAG](#) [SiT1602BI-22-33E-50.000000E](#) [SIT8003AC-11-33S-2.04800X](#) [SiT8256AC-23-33E-156.250000X](#) [SIT8918AA-11-33S-50.000000G](#) [SM4420TEV-40.0M-T1K](#) [SMA4306-TL-H](#) [F335-24](#) [F335-40](#) [F335-50](#) [F535L-10](#) [F535L-12](#) [F535L-16](#) [F535L-24](#) [F535L-27](#) [F535L-48](#) [PE7744DW-100.0M](#) [CSX750FBC-20.000M-UT](#) [CSX-750FBC33333000T](#) [CSX750FBC-4.000M-UT](#) [CSX750FBC-7.3728M-UT](#) [CSX750FBC-8.000M-UT](#) [CSX-750FCC14745600T](#) [CSX750FCC-16.000M-UT](#) [CSX-750FCC40000000T](#) [CSX750FCC-4.000M-UT](#) [ASA-22.000MHZ-L-T](#) [ASA2-26.000MHZ-L-T](#) [ASA-40.000MHZ-L-T](#) [ASA-48.000MHZ-L-T](#) [ASA-60.000MHZ-L-T](#) [ASF1-3.686MHZ-N-K-S](#)