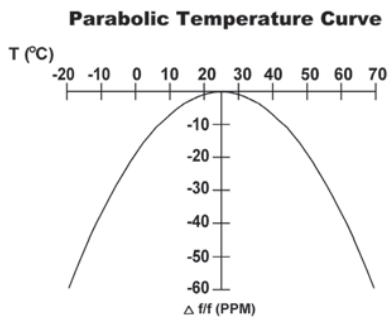
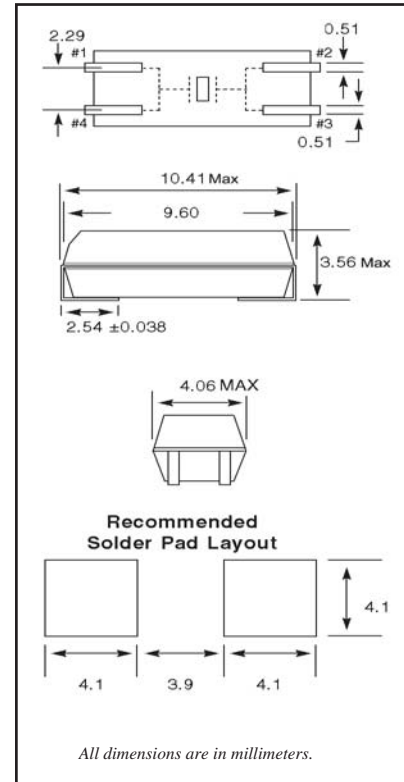




## • KFSM STANDARD SPECIFICATIONS

PARAMETERS	MAX (unless otherwise noted)
Frequency	32.768 kHz
Frequency Tolerance @ 25°C	±20 PPM
Frequency Stability Temperature Coefficient	-0.04 PPM / (Δ°C) <sup>2</sup>
Temperature Range	
Turnover (T <sub>O</sub> )	+20°C ~ +30°C
Operating (T <sub>OPR</sub> )	+40°C ~ +85°C
Storage (T <sub>STG</sub> )	-55°C ~ +125°C
Equivalent Series Resistance (R <sub>S</sub> )	50 kΩ
Load Capacitance (C <sub>L</sub> )	(See options on page 2)
Insulation Resistance @ 100VDC	500 MΩ Min
Drive Level	1.0 μW
Aging per year	±3 PPM
Termination Finish	100% Matte Sn
Lead (Pb) Free	Yes
RoHS Compliant	Yes



To determine frequency stability, use parabolic curvature (K).  
For example: What is stability at 45°C?

- 1) Change in T (°C) = 45-25 = 20°C
- 2) Change in frequency = -0.04 PPM \* (Δ C)<sup>2</sup>  
= -0.04 PPM \* (20)<sup>2</sup>  
= -16.0 PPM

Note: Dimensional drawing is for reference to critical specifications defined by size measurements. Certain non-critical visual attributes, such as side castellations, etc. may vary.



<b>Title / Description:</b> KFSM SERIES STANDARD SPECIFICATIONS	
<b>Drawing Number:</b> 101145	<b>Size:</b> A
<b>Part Number:</b>	<b>Cage:</b> 61429
<b>Draftsperson:</b> SM	<b>Approved:</b> CMR
<b>Revision Date:</b> 1/19/2017	

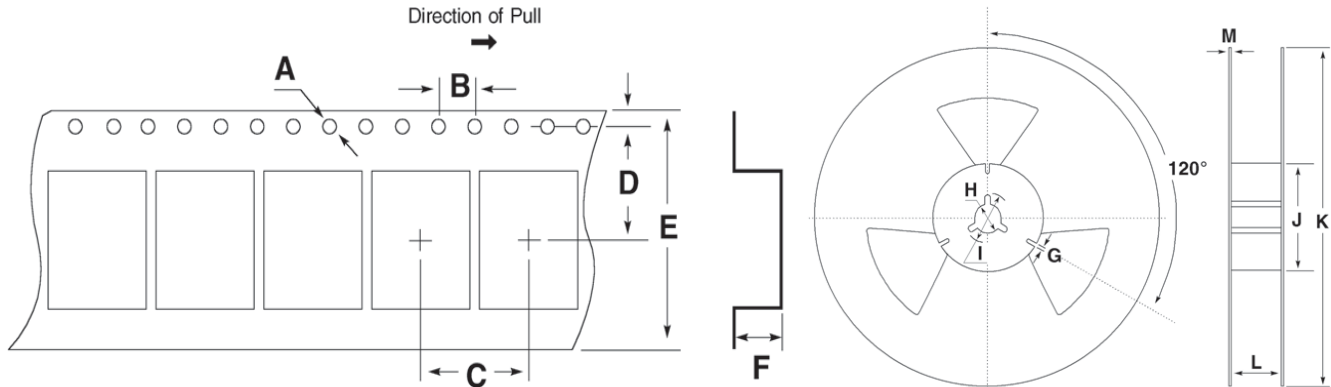


# SMD Tuning Fork

**KFSM**  
(former FSMLF)  
**DATASHEET**

• TAPE SPECIFICATIONS (millimeters)							
MODEL	A	B	C	D	E	F	STD Reel QTY
KFSM	∅1.5	4.0	8.0	7.5	16.0	2.7	2,000

• REEL SPECIFICATIONS (millimeters)							
MODEL	G	H	I	J	K	L	M
KFSM	2.0	∅13	∅21	∅50/100	∅330	16.4	2.0



## Available Options & Part Identification for SMD Tuning Fork Crystal KFSM F KFSM E I H M 0.32768

F	KFSM	E	I	H	M	0.32768
<u>FOX</u>	<u>Model Number</u>	<u>Tolerance</u> E = 20 PPM	<u>Stability</u> I = -0.04 PPM / (Δ°C) <sup>2</sup>	<u>Load Capacitance</u> B = 6 pF H = 12.5 pF* (*standard)	<u>Operating Temperature</u> M = -40 ~ +85 °C	<u>Frequency (MHz)</u>



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.  
For datasheet type definitions and a glossary of common terms, visit <http://www.foxonline.com/tgocrystals.html>.

<p>© Copyright 2017 Fox Electronics, All rights reserved</p>	<b>Title / Description:</b> KFSM SERIES STANDARD SPECIFICATIONS	
	<b>Drawing Number:</b> 101145	<b>Size:</b> A
	<b>Part Number:</b>	<b>Cage:</b> 61429
	<b>Draftsperson:</b> SM	<b>Approved:</b> CMR
		<b>Revision Date:</b> 1/19/2017