



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

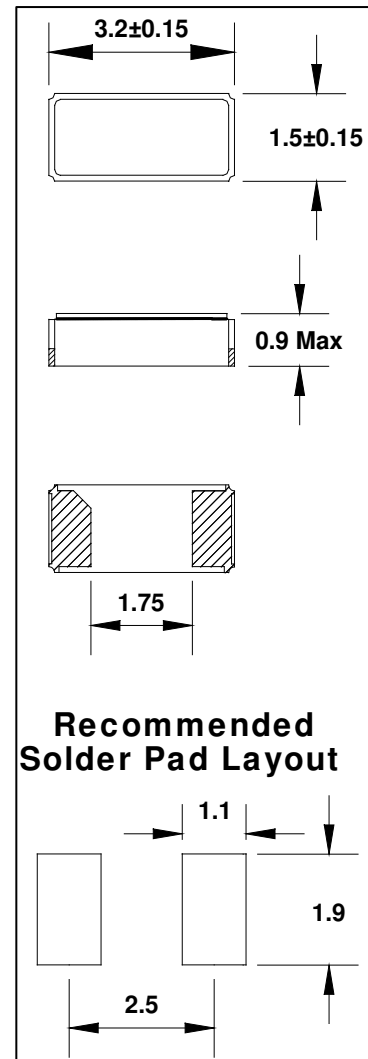




SMD Tuning Fork

K135 (former FX135) DATASHEET

| • K135 STANDARD SPECIFICATIONS | |
|--|------------------------------|
| PARAMETERS | MAX (unless otherwise noted) |
| Frequency | 32.768 kHz |
| Frequency Tolerance @ 25°C | (See options on page 2) |
| Frequency Stability Temperature Coefficient | -0.04 PPM / (Δ°C) |
| Temperature Range | |
| Turnover (T _o) | +20°C ~ +30°C |
| Operating (T _{OPR}) | -40°C ~ +85°C |
| Storage (T _{STG}) | -55°C ~ +125°C |
| Equivalent Series Resistance (R _S) | 70 kΩ |
| Load Capacitance (C _L) | (See options on page 2) |
| Insulation Resistance @ 100V _{DC} | 500MΩ Min |
| Drive Level | 1.0 μW 0.1 μW Typ |
| Aging per year | ±3 PPM |
| 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 |

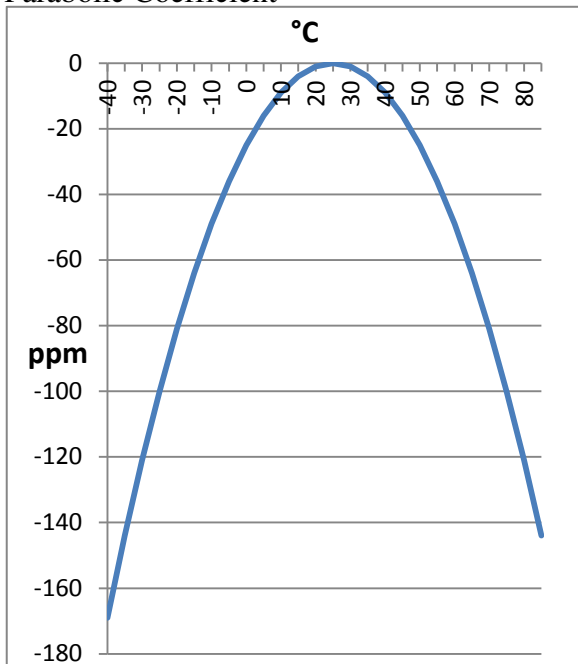


Recommended Solder Pad Layout

All dimensions are in millimeters.

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.

Parabolic Coefficient



| | |
|--|----------------------|
| Title / Description: K135 STANDARD SPECIFICATIONS | |
| Drawing Number: 100973 | Size: A |
| Part Number: | Cage: 61429 |
| Draftsperson: CMR | Approved: BEC |
| Revision Date: 04/28/2017 | |

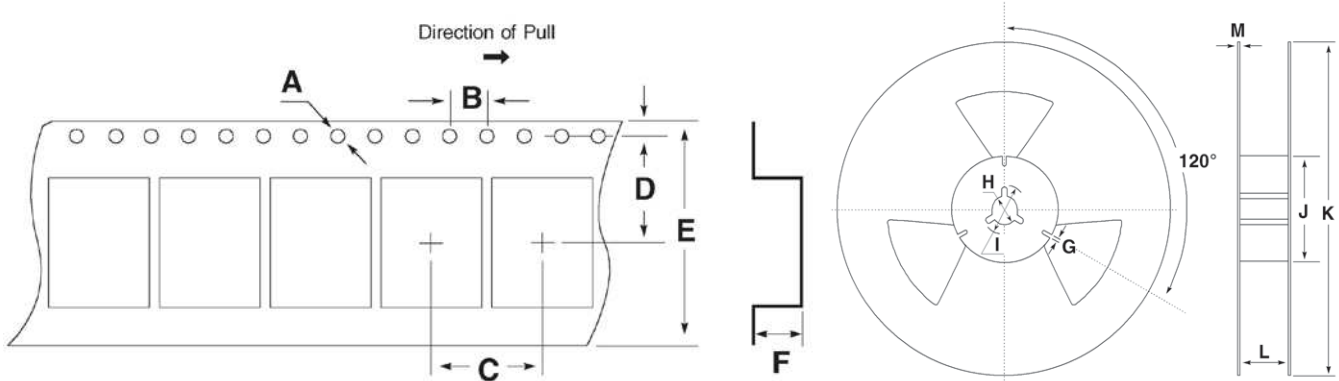


SMD Tuning Fork

K135
(former FX135)
DATASHEET

| • TAPE SPECIFICATIONS (millimeters) | | | | | | |
|-------------------------------------|-----|-----|-----|------|-----|--------------|
| A | B | C | D | E | F | STD Reel QTY |
| Ø1.5 | 4.0 | 4.0 | 5.5 | 12.0 | 1.0 | 3,000 |

| • REEL SPECIFICATIONS (millimeters) | | | | | | |
|-------------------------------------|-----|-----|-----|------|------|-----|
| G | H | I | J | K | L | M |
| 2.0 | Ø13 | Ø21 | Ø60 | Ø180 | 13.0 | 1.2 |



Available Options & Part Identification for SMD Tuning Fork Crystal K135 **F K135 E I H M 0.032768**

| F | K135 | E | I | H | M | 0.032768 |
|-------------------|----------------------------|---|---|---|--|-------------------------------|
| <u>FOX</u> | <u>Model Number</u> | <u>Tolerance</u> E = 20 PPM H = 10 PPM | <u>Stability</u> I = -0.04 PPM / (Δ°C) | <u>Load Capacitance</u> B=6pF V=7pF W=9pF H=12.5pF | <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/tgcrystals.html>.

| | | |
|--|--|----------------------------------|
| | Title / Description: K135 STANDARD SPECIFICATIONS | |
| | Drawing Number: 100973 | Size: A |
| | Part Number: | Cage: 61429 |
| | Draftsperson: CMR | Approved: BEC |
| | | Revision Date: 04/28/2017 |