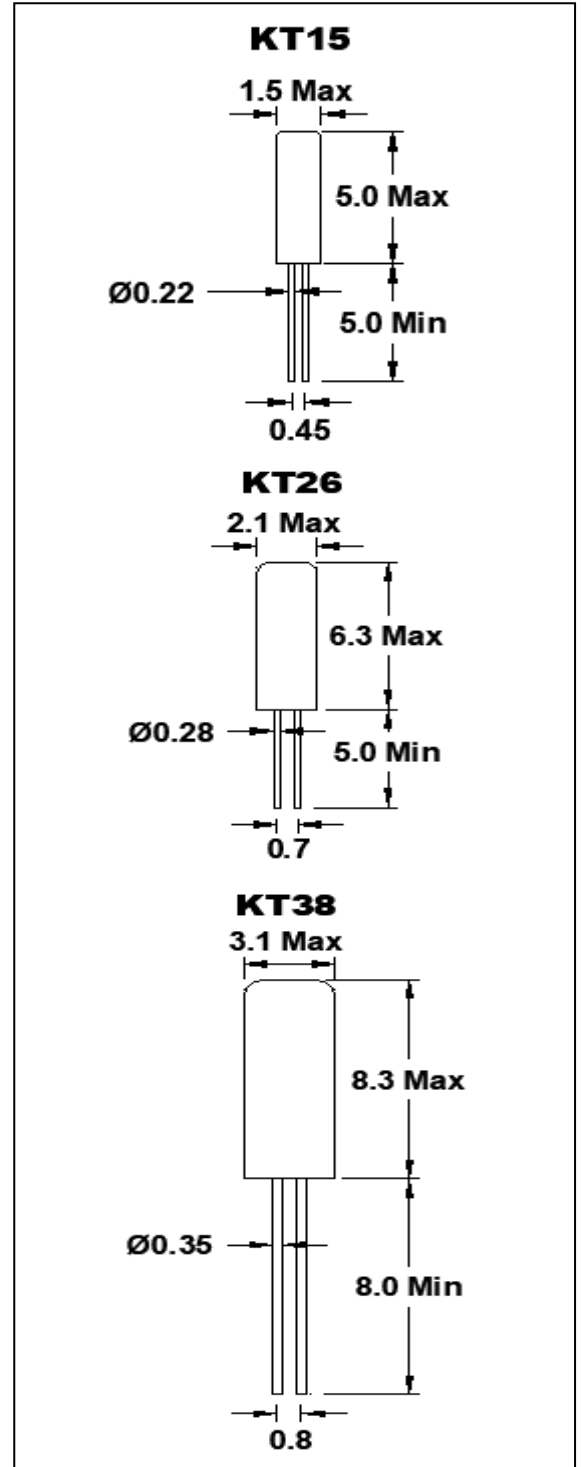
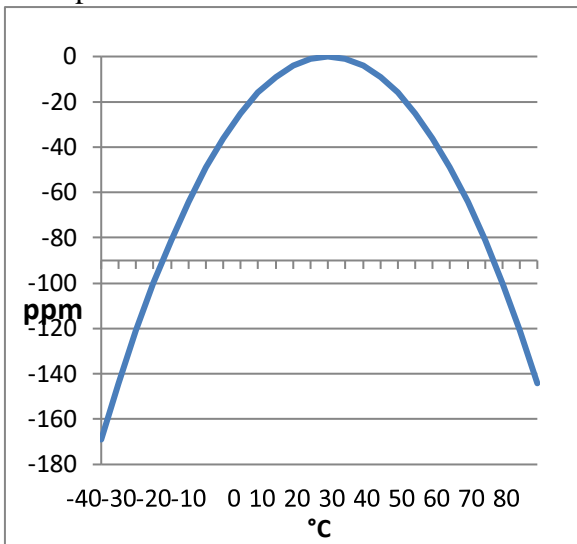




STANDARD SPECIFICATIONS	
PARAMETERS	MAX (unless otherwise noted)
Frequency	32.768 kHz
Frequency Tolerance @ 25°C	±20 PPM
Frequency Stability (Temperature Coefficient)	-0.04 PPM / (Δ°C) <sup>2</sup>
Temperature Range	
Turnover (T <sub>o</sub> )	+20°C ~ +30°C
Operating (T <sub>OPR</sub> )	See options on page 2.
Storage (T <sub>STG</sub> )	-40°C ~ +85°C
Equivalent Series Resistance (R <sub>s</sub> )	
KT15	50 kΩ
KT26/KT38	35 kΩ
Load Capacitance (C <sub>L</sub> )	(See options on page 2)
Insulation Resistance @ 100VDC	500MΩ Min
Drive Level	1.0 μW
Aging per year	±3 PPM
Wave Soldering Temp / Time	300°C / 5Sec (leads only)
Moisture Sensitivity Level (MSL)	1
Termination Finish	SnCu
Lead (Pb) Free	Yes
RoHS Compliant	Yes, no exemptions
REACH Compliant (latest version)	Yes



Temperature Coefficient



7/29/2020 – KT26 ESR updated to 35kohms.

**Title / Description:** KT15, KT26, KT38 STANDARD SPECIFICATIONS

**Drawing Number:** KT15\_KT26\_KT38-DOC-1

**Size:** A

**Part Number:**

**Cage:** 61429

**Draftsperson:** BEC

**Approved:** MAJ

**Revision Date:** 07/29/2020



### Available Options & Part Identification for KT15, KT26, KT38 **F KT26 E I H M 0.032768**

<b>F</b>	<b>KT26</b>	<b>E</b>	<b>I</b>	<b>H</b>	<b>M</b>	<b>0.032768</b>
<b><u>FOX</u></b>	<b><u>Model Number</u></b> KT15 KT26 KT38	<b><u>Tolerance</u></b> E = ±20ppm	<b><u>Stability</u></b> I = -0.04 PPM / (Δ°C) <sup>2</sup>	<b><u>Load Capacitance</u></b> B=6pF H=12.5pF	<b><u>Operating Temperature</u></b> C = 0 ~ +70°C D = -10 ~ +60°C Q = -20 ~ +60°C M = -40 ~ +85°C	<b><u>Frequency (MHz)</u></b>



**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>.

7/29/2020 – KT26 ESR updated to 35kohms.  © Copyright 2020 Fox Electronics. All rights reserved	<b>Title / Description:</b> KT15, KT26, KT38 STANDARD SPECIFICATIONS	
	<b>Drawing Number:</b> KT15_KT26_KT38-DOC-1	<b>Size:</b> A
	<b>Part Number:</b>	<b>Cage:</b> 61429
	<b>Draftsperson:</b> BEC	<b>Approved:</b> MAJ
		<b>Revision Date:</b> 07/29/2020



### Crystal Unit Handling Precautions

#### 1) Mounting Precautions

- Structure – Cylinder crystals are hermetically sealed using glass to metal seals (see figs 1 and 2)

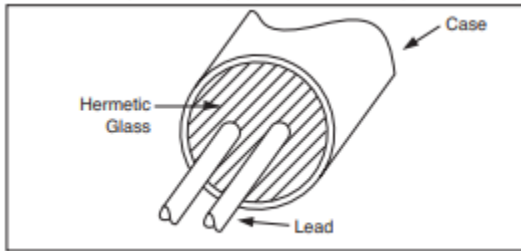


Figure 1

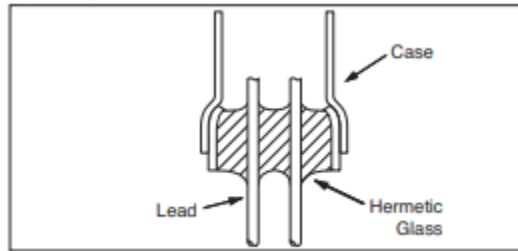


Figure 2

- Unbending the lead
  - (1) DO NOT pull the lead excessively if unbending a lead or removing a crystal unit. The excessive force may crack the glass and reduce the degree of vacuum. This may eventually result in deterioration of the characteristics and may also break the crystal chip (see Figure 3).
  - (2) Unbend the lead by pressing on the bent part from both the upper and lower sides while holding the bottom of lead tightly (see Figure 4).

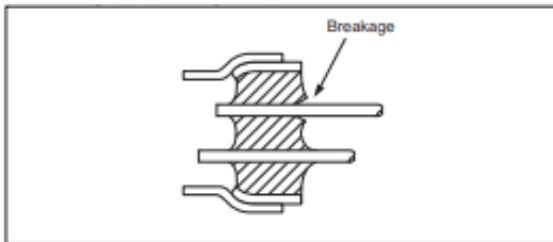


Figure 3

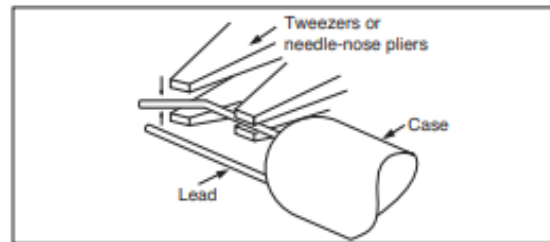


Figure 4

- Bending the lead
  - (1) Bend the lead so that the lead will remain straight for more than 0.5mm from the case when soldering a crystal unit after bending. If not, the glass may be cracked (see Figures 5 and 6).
  - (2) Always leave a length greater than 2.0mm when bending a lead after soldering (see Figure 7)

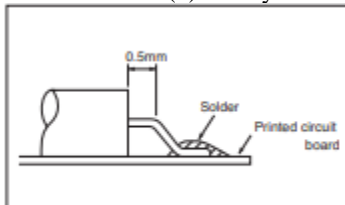


Figure 5

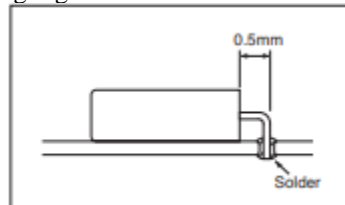


Figure 6

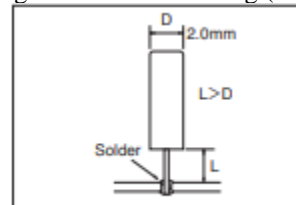


Figure 7

Soldering directly to the case will reduce the degree of vacuum and may result in deterioration of the characteristics and may break the crystal chip.

Make the length from the case to the printed circuit board (L) longer than the case diameter (D) so that the lead wire will not be pulled in case the crystal unit falls over.



### 2) Soldering

The soldering position must be at the lead wire more than 1.0mm away from the glass seal. Excessive heating time at high temperature may result in deterioration of the characteristics and may break the crystal unit. If crystal unit is unavoidably heated, heat the lead part at 300°C or lower for 5 seconds or less and please make sure to keep the case below 150°C.

### 3) Cleaning

Since a small, thin crystal chip is used for tuning fork crystal units and the frequency approximates that of an ultrasonic cleaner, the crystal chip may break easily. Therefore, DO NOT perform ultrasonic cleaning.

7/29/2020 – KT26 ESR updated to 35kohms.  © Copyright 2020 Fox Electronics. All rights reserved	<b>Title / Description:</b> KT15, KT26, KT38 STANDARD SPECIFICATIONS	
	<b>Drawing Number:</b> KT15_KT26_KT38-DOC-1	<b>Size:</b> A
	<b>Part Number:</b>	<b>Cage:</b> 61429
	<b>Draftsperson:</b> BEC	<b>Approved:</b> MAJ
		<b>Revision Date:</b> 07/29/2020