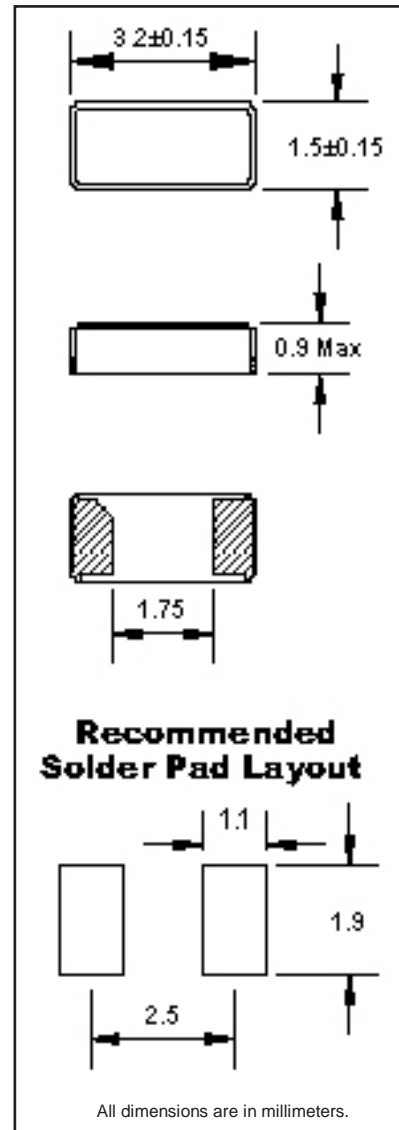




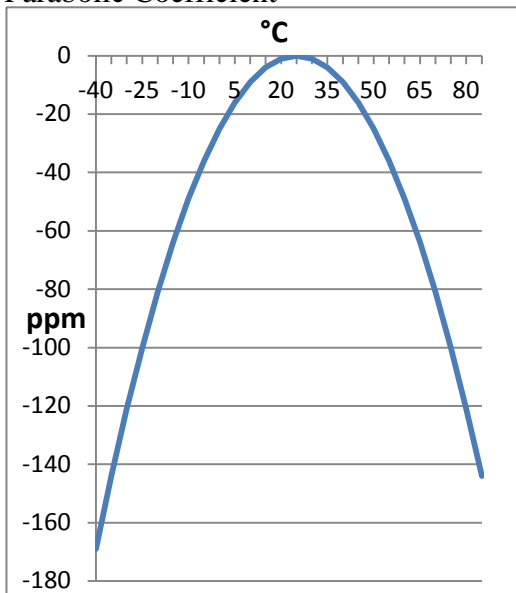
SMD Tuning Fork Crystal, Low ESR

K13L (former FX135L) DATASHEET

• K13L 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) ²
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)	50 kΩ
Load Capacitance (C _L)	(See options on page 2)
Insulation Resistance @ 100Vdc	500MΩ Min
Drive Level	1.0uW 0.1uW 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



Parabolic Coefficient



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.



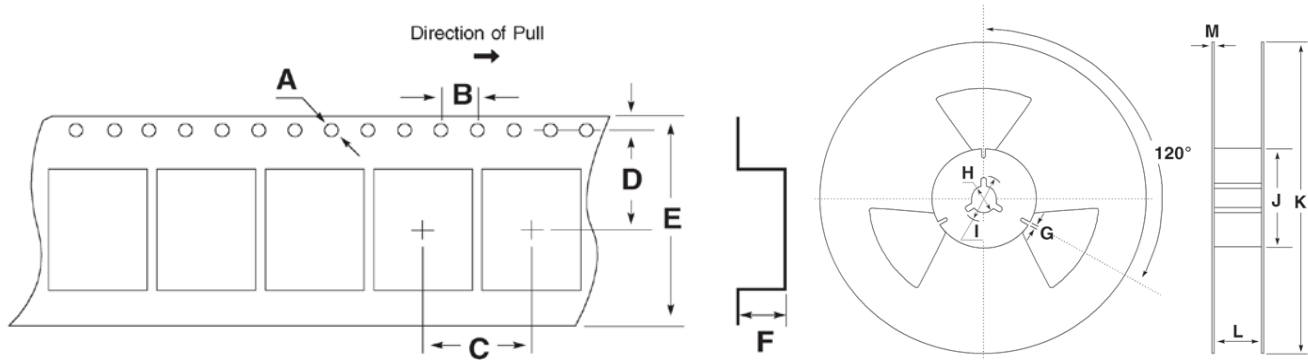
Title / Description: K13L STANDARD SPECIFICATIONS	
Drawing Number:	Size: A
Part Number:	Cage: 61429
Draftsperson: CMR	Approved: BEC
Revision Date: 04/17/2017	



SMD Tuning Fork Crystal, Low ESR

K13L
(former FX135L)
DATASHEET

• TAPE SPECIFICATIONS (millimeters)							• REEL SPECIFICATIONS (millimeters)						
A	B	C	D	E	F	STD Reel QTY	G	H	I	J	K	L	M
Ø1.5	4.0	4.0	5.5	12.0	1.0	3,000	2.0	Ø13	Ø21	Ø60	Ø180	13.0	1.2



Available Options & Part Identification for SMD Tuning Fork Crystal K13L **F K13L E I H M 0.032768**

F	K13L	E	I	H	M	0.032768
FOX	Model Number	Tolerance E = 20 PPM H = 10 PPM	Stability I = -0.04 PPM / (Δ°C)	Load Capacitance B=6pF V=7pF W=9pF H=12.5pF	Operating Temperature M = -40 ~ +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>

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