

# SMD 2.0 x 1.2 Tuning Fork



Model: FX122

RoHS Compliant / Pb Free

Rev. 8/6/2010

Page 1 of 2

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## FEATURES

- Ultra Low Profile
- 0.6mm Height
- Long Term Stability
- Tape and Reel (3,000 pcs. STD)

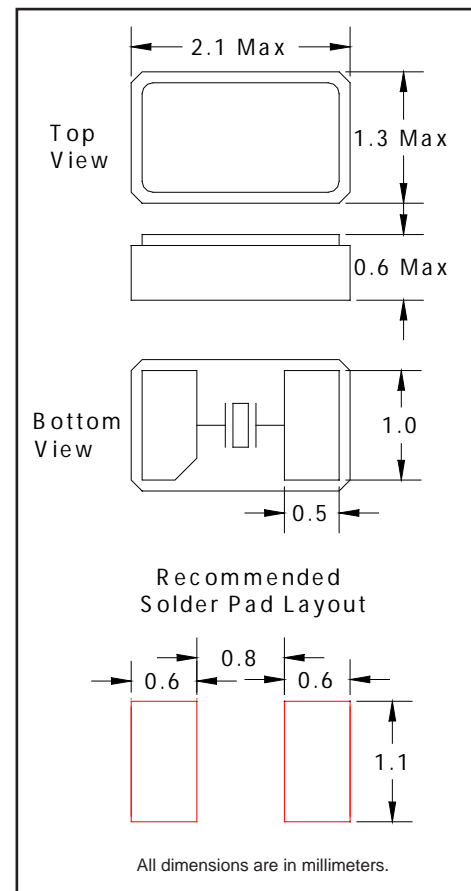
## • PART NUMBER [Learn More](#) - Internet Required

Part Number	Model Number	Frequency Stability	Operating Temperature	Frequency
832-0.032768-xxxxx	FX122	-0.04PPM/( $\Delta^{\circ}\text{C}$ ) <sup>2</sup>	-40 ~ +85 $^{\circ}\text{C}$	32.768 kHz

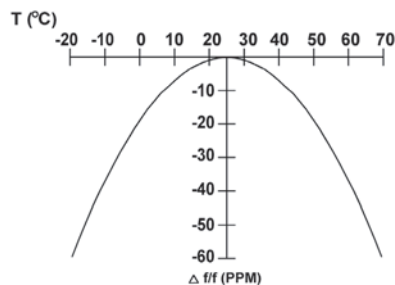
## • STANDARD SPECIFICATIONS

PARAMETERS	MAX (unless otherwise noted)
Frequency	32.768 kHz
Frequency Tolerance @ 25 $^{\circ}\text{C}$	$\pm 20$ PPM
Frequency Stability Temperature Coefficient	-0.04 PPM / ( $\Delta^{\circ}\text{C}$ ) <sup>2</sup>
Temperature Range	
Turnover (TO)	+20 $^{\circ}\text{C}$ ~ +30 $^{\circ}\text{C}$
Operating (TOPR)	-40 $^{\circ}\text{C}$ ~ +85 $^{\circ}\text{C}$
Storage (TSTG)	-55 $^{\circ}\text{C}$ ~ +125 $^{\circ}\text{C}$
Equivalent Series Resistance (RS)	90 k $\Omega$
Load Capacitance (CL)	12.5 pF Standard 9.0 pF Optional
Insulation Resistance @ 100VDC	500M $\Omega$ Min
Drive Level	0.5 $\mu\text{W}$
Aging per year	$\pm 3$ PPM
Reflow Soldering Temperature	260 $^{\circ}\text{C}$ / 10 Seconds
Moisture Sensitivity Level (MSL)	1
Termination Finish	Au (over Ni)

\* 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.  
All specifications subject to change without notice.



## Parabolic Temperature Curve



To determine frequency stability, use parabolic curvature (K).  
For example: What is stability at 45 $^{\circ}\text{C}$ ?

- 1) Change in T ( $^{\circ}\text{C}$ ) = 45-25 = 20 $^{\circ}\text{C}$
- 2) Change in frequency =  $-0.04 \text{ PPM} * (\Delta \text{C})^2$   
 $= -0.04 \text{ PPM} * (20)^2$   
 $= -16.0 \text{ PPM}$

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Page 2 of 2

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• TAPE SPECIFICATIONS (millimeters)							
MODEL	A	B	C	D	E	F	STD Reel QTY
FX122	Ø1.5	4.0	4.0	3.5	8.0	0.8	3,000

• REEL SPECIFICATIONS (millimeters)							
MODEL	G	H	I	J	K	L	M
FX122	2.0	Ø13	Ø21	Ø60	Ø180	9.0	2.0

