

### FEATURES

- Extremely Small Size
- Low Cost
- 1.4mm Height Max
- Tape and Reel (3,000 pcs. STD)

**Quote it!**

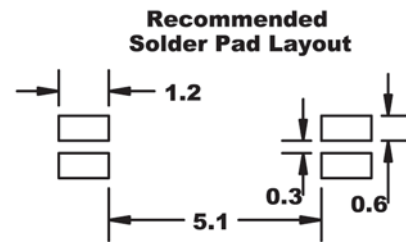
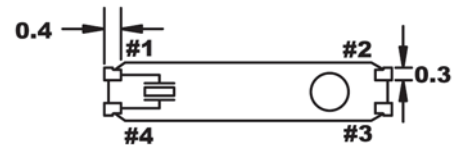
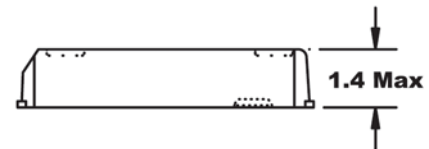
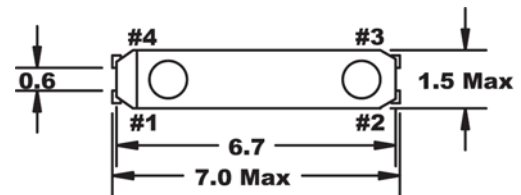
• PART NUMBER <a href="#">Learn More</a> - Internet Required				
Part Number	Model Number	Frequency Stability	Operating Temperature	Frequency
501LF-Frequency-xxxxx	FSXLF	-0.04PPM/( $\Delta^{\circ}\text{C}$ ) <sup>2</sup>	-40 ~ +85 °C	32.768 kHz



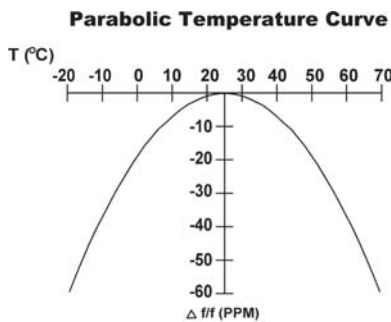
Learn more about:  
[Part Marking Identification](#)  
[Tape and Reel Specification](#)  
Internet required

• STANDARD SPECIFICATIONS	
PARAMETERS	MAX (unless otherwise noted)
Frequency Range	32.768 kHz
Frequency Tolerance @ 25°C	±20 PPM
Frequency Stability, ref @ 25°C	-0.04PPM/( $\Delta^{\circ}\text{C}$ ) <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	65 k $\Omega$
Load Capacitance (CL)	7 pF, 12.5pF Typ
Insulation Resistance @ 100V <sub>DC</sub>	500 M $\Omega$ Min
Drive Level	1.0 $\mu$ W
Aging	±3 PPM

All specifications subject to change without notice. Rev. 7/12/04



All dimensions are in millimeters.



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 \* ( $\Delta^{\circ}\text{C}$ )<sup>2</sup>  
 = -0.04 PPM \* (20)<sup>2</sup>  
 = -16.0 PPM