

FEATURES

- Miniature Package
- 2.5mm Height
- Long Term Stability
- Tape and Reel (3,000 pcs. STD)

DISCONTINUED



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

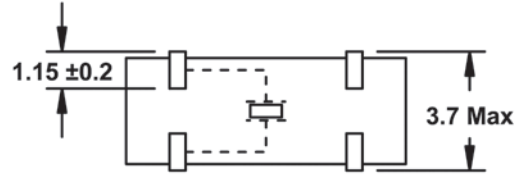
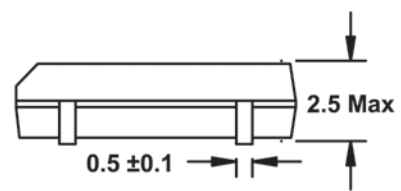
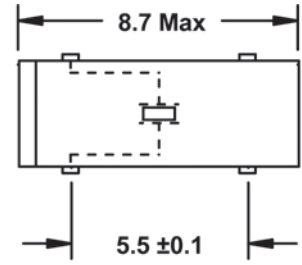
Part Number	Model Number	Frequency Stability	Operating Temperature	Frequency
414-Frequency-xxxxx	FSR	See table	-40 °C~ +85 °C	32.768 kHz

• STANDARD SPECIFICATIONS

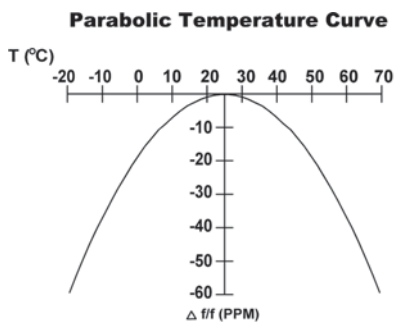
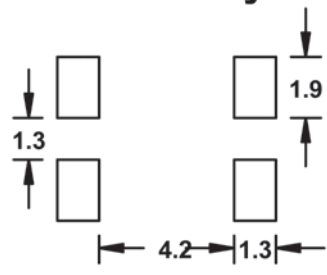
PARAMETERS	MAX (unless otherwise noted)
Frequency	32.768 kHz
Frequency Tolerance @ 25°C	±20 PPM
Frequency Stability Temperature Coefficient	-0.04 PPM / (Δ°C) ²
Temperature Range	
Turnover (T _O)	+20°C ~ +30°C
Operating (T _{OPR})	-40°C ~ +85°C
Storage (T _{STG})	-55°C ~ +125°C
Equivalent Series Resistance (R _S)	50 kΩ
Load Capacitance (C _L)	12.5 pF (Standard) 6 pF (Optional)
Insulation Resistance @ 100VDC	500 MΩ Min
Drive Level	1.0 μW
Aging per year	±3 PPM

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

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



Recommended Solder Pad Layout



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 * (Δ C)²
= -0.04 PPM * (20)²
= -16.0 PPM

All dimensions are in millimeters.