



FEATURES

- Ultra Low Profile
- 1.0mm Height
- Long Term Stability
- Tape and Reel (3,000 pcs. STD)
- ± 10 PPM Available

DISCONTINUED

Quote it!

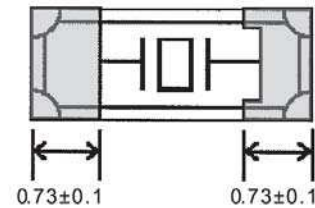
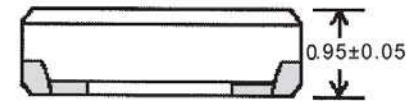
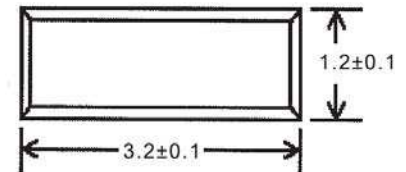
PART NUMBER Learn More - Internet Required				
Part Number	Model Number	Frequency Stability	Operating Temperature	Frequency
593-Frequency-xxxxx	FSN	$-0.045\text{PPM}/(\Delta^\circ\text{C})^2$	$-40 \sim +85^\circ\text{C}$	32.768 kHz

STANDARD SPECIFICATIONS

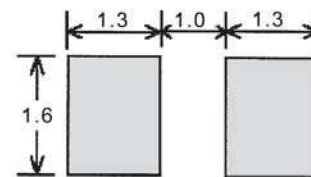
PARAMETERS	MAX (unless otherwise noted)
Frequency	32.768 kHz
Frequency Tolerance @ 25°C	± 20 PPM
Frequency Stability Temperature Coefficient	$-0.045 \text{ PPM} / (\Delta^\circ\text{C})^2$
Temperature Range	
Turnover (TO)	$+20^\circ\text{C} \sim +30^\circ\text{C}$
Operating (TOPR)	$-40^\circ\text{C} \sim +85^\circ\text{C}$
Storage (TSTG)	$-55^\circ\text{C} \sim +125^\circ\text{C}$
Equivalent Series Resistance (RS)	65 k Ω
Load Capacitance (CL)	12.5 pF (Standard) 7 pF (Optional)
Insulation Resistance @ 100VDC	500 M Ω Min
Drive Level	1.0 μW
Aging per year	± 5 PPM

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

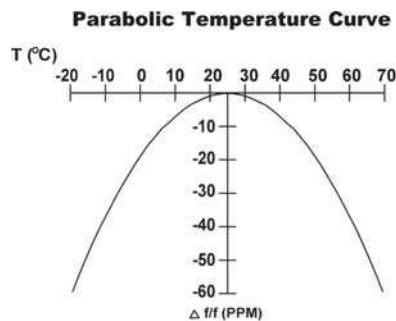
Learn more about:
[Part Marking Identification](#)
[Tape and Reel Specification](#)
 Internet required



Recommended Solder Pad Layout



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