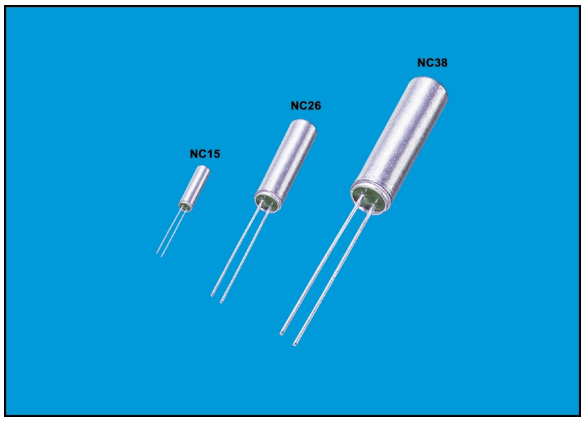
TUNING FORK WATCH CRYSTALS
NC15/NC26/NC38

Fox offers state of the art technology in tuning fork crystals for microprocessors, computers, peripheral clocks, watches, instruments and other time management products. The standard Watch Crystal at 32.768kHz is available in miniature and sub-miniature packages.



FEATURES

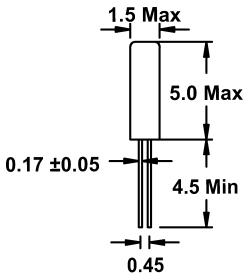
- Miniature Packages
- Low Cost
- Cold Weld Design
- Long Term Stability
- Tight Tolerance

• NC15/NC26/NC38 STANDARD SPECIFICATIONS

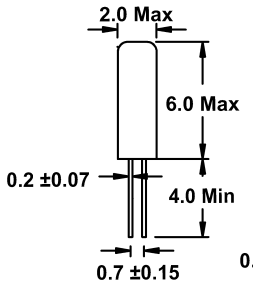
PARAMETERS	CONDITIONS	NC15		NC26		NC38		UNITS
		MIN	MAX	MIN	MAX	MIN	MAX	
Frequency	32.768 kHz							
Frequency Tolerance	Ta = 25°C , CL=12.5pF	-20	+20	-20	+20	-20	+20	PPM
Frequency Stability (K)	Temperature Coefficient		-0.04		-0.04		-0.04	PPM / (Δ°C)²
Temperature Range								
Turnover (To)		+20	+30	+20	+30	+20	+30	°C
Operating (TOPR)		-20	+60	-20	+60	-10	+60	
Storage (TSTG)		-30	+70	-30	+70	-20	+70	
Equivalent Series Resistance (ESR)			50		50		35	kΩ
Insulation Resistance	100 VDC	500		500		500		MΩ
Drive Level			1.0		1.0		1.0	µW
Aging	Ta = 25°C; per year	-3.0	+3.0	-3.0	+3.0	-3.0	+3.0	PPM

All specifications subject to change without notice. Rev. 03/06/00

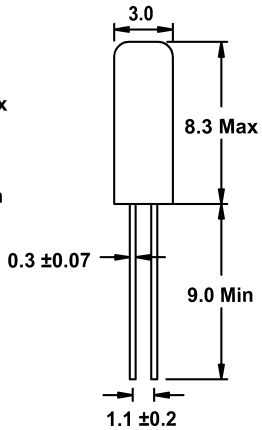
NC15



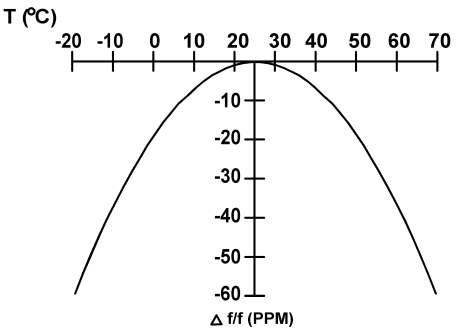
NC26



NC38



Parabolic Temperature Curve



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 (MAX)

All dimensions are in millimeters.