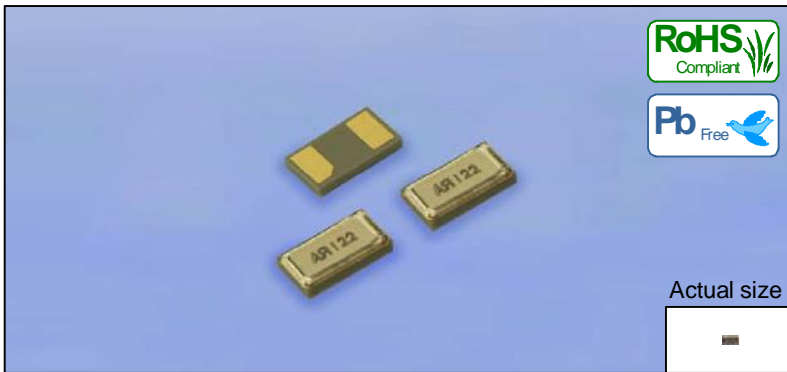


# SURFACE MOUNT CRYSTAL TFX-03L

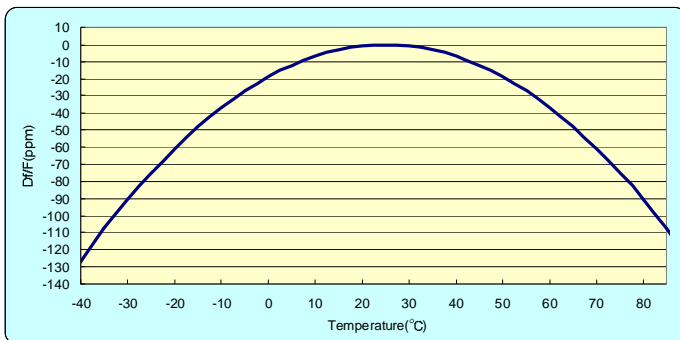


Actual size

## Specifications

Item	Standard specifications
Nominal frequency(kHz)	32.768
Frequency tolerance(ppm) (at 25°C)	±20, ±50, ±100
Storage temperature range(°C)	55 to +125
Operating temperature range(°C)	-40 to +85
Turnover temperature(°C)	25±5
Parabolic coefficient(/°C <sup>2</sup> )	$-(0.03 \pm 0.01) \times 10^{-6}$
Motional resistance(ESR)(kΩ)	100 Max.
Motional capacitance(ff)	7.0 Typ.
Level of drive(μW)	0.5 Max.
Load capacitance(pF)	7.0, 9.0, 12.5

## An example of frequency vs temperature characteristic



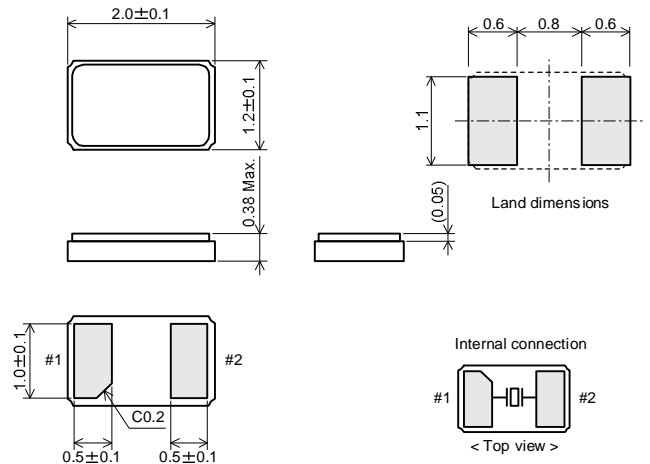
Please consult us for customized specifications.  
All specifications and markings subjected to change without notice.

## Features

- Compact design(2.0mm×1.2mm×0.38mm Max.).
- Ceramic package and metal lid assures extreme accuracy and high reliability by electron beam sealing.
- Lead-free soldering is available.
- Applications: Smart Card, SDIO card, Small I portable device

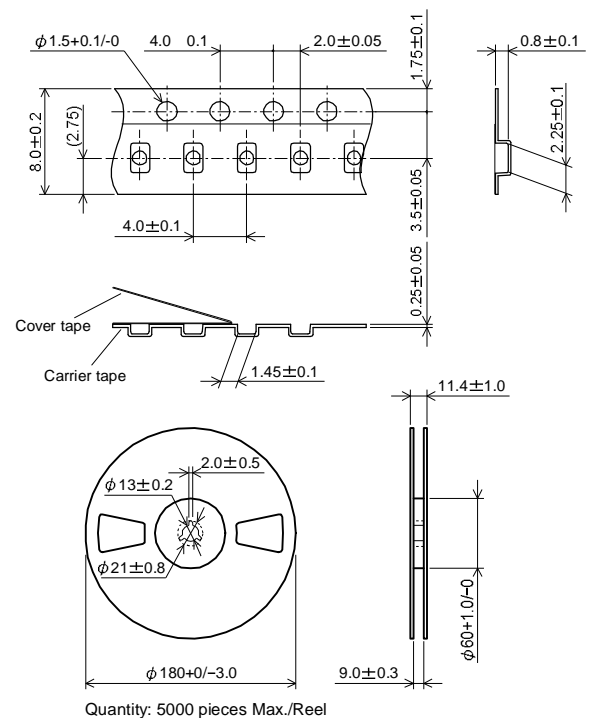
## Dimensions

Unit:mm



## Taping

Unit:mm



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