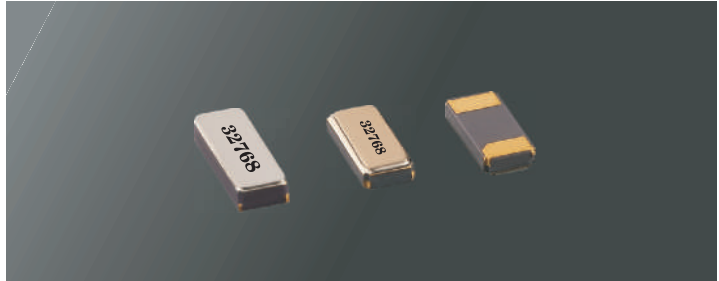




## Features

High Stability  
Small Size and Low Profile  
Excellent Reliability and Aging



## Specifications

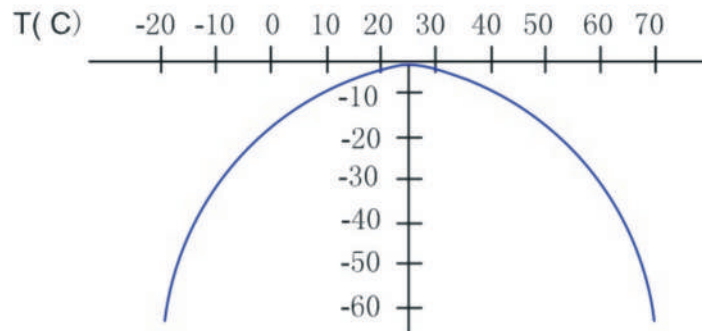
	Type	S3215 / S4115
频率范围 Frequency Range(KHz)	Tuning fork	32.768KHz
调整频差 (ppm)	Frequency Tolerance (at 25°C)	±20 ~ ±50ppm
温度特性	Temperature Characteristics	
拐点温度 ( °C )	Turnover Temperature	25°C ±5°C
二次温度系数	Parabolic Curvature constant	-0.035±0.008 ppm/°C <sup>2</sup>
工作温度 ( °C )	Operating Temperature	-40°C ~ +85°C
储存温度 ( °C )	Storage Temperature Range	-55°C ~ +125°C
等效电阻 ( Ω )	Equivalent Series Resistance	80K Ω MAX
静态电容 (pF)	Shunt Capacitance	2.0 pF Max
负载电容 (pF)	Load Capacitance	12.5pF (Standard) / 9.0pF
绝缘电阻 (MΩ)	Insulation Resistance	≥500MΩ//DC100V ± 10V
激励功率 (mW)	Drive Level	1.0 μ W Max
老化率 (ppm/y)	Aging	±3ppm/year

## Options Available

Options Available	Item
V	Reel packing/ ammo packing
V	Different reel size options available
V	Special Frequency Tolerance requirement
V	Special ESR

# Tuning Fork SMD 32.768KHz (S3215 / S4115)

## ■ Parabolic Temperature Curve



To determine frequency stability, use parabolic curvature  
For example: What is the stability at 45°C

$$\begin{aligned}
 1) \text{ Change in } T(^{\circ}\text{C}) &= 45 - 25 = 20^{\circ}\text{C} \\
 2) \text{ Change in frequency} &= -0.04 \text{ PPM} \times (\Delta T)^2 \\
 &= -0.04 \text{ PPM} \times (20)^2 \\
 &= -16.0 \text{ PPM}
 \end{aligned}$$

## ■ Dimension (Unit: mm)

