

# 32.768kHz SMD Crystal Units



Size: 3.2×1.5×0.75 mm

7L Series 32.768kHz SMD Crystal Units

## Features

- 3215size ultra miniature and lightweight with a low profile of 0.75mm.
- High precision and reliability
- High reliable environmental performance
- Automatic mounting and reflow soldering
- Application for Smart phone, Wave clock, Mobile communications, automotive, etc.
- RoHS Compliant /Pb Free



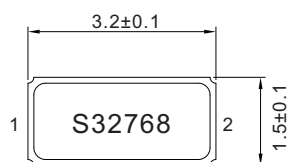
## Standard Specification

Item /Type	7L (7L Series 32.768kHz SMD Crystal Units)
Frequency Range	32.768 kHz
Frequency Tolerance	±20ppm, or specify
Load Capacitance	6pF, 9pF, 12.5pF, or specify
Operating Temperature Range	-40~+85°C, or specify
Storage Temperature Range	-55~+125°C
Drive Level	1.0μW Max.
Turnover Temperature	±25°C±5°C
Parabolic Coefficient	$(-0.03±0.01)×10^{-6}/°C^2$
Shunt Capacitance	1.0pF Typ.
Aging (at 25°C)	±3ppm at first year
Packing Unit	3000pcs./Reel

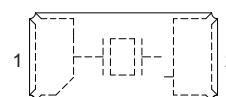
## Equivalent Series Resistance

Fundamental	
32.768 kHz	70KΩ Max.

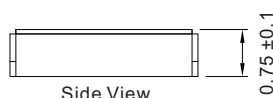
## Dimensions [mm]



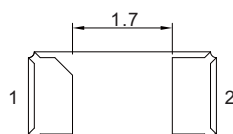
Top View



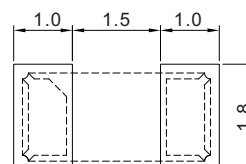
Top View Crystal Connection



Side View



Bottom View



Top View Suggested Layout