

## Features

- 2012 size ultra miniature and lightweight with a low profile of 0.6mm
- High precision and reliability
- High reliable environmental performance
- Automatic mounting and reflow soldering
- Applications: *Smartphone, Wave Clock, Mobile Communications, Automotive, etc.*
- RoHS Compliant & Pb Free



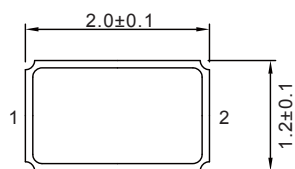
## Standard Specifications

Type	7R Series SMD Crystal
Frequency Range	32.768 kHz
Frequency Tolerance	±20ppm
Load Capacitance	6pF, 7pF, 9pF, 12.5pF, or specify
Operating Temperature Range	-40~+85°C, or specify
Storage Temperature Range	-55~+125°C
Drive Level	0.5μW Max.
Turnover Temperature	±25°C±5°C
Parabolic Coefficient	$(-0.03 \pm 0.01) \times 10^{-6} / ^\circ\text{C}^2$
Shunt Capacitance	1.3pF Typ.
Aging (at 25°C)	±3ppm at first year
Packing Unit	3000pcs./Reel

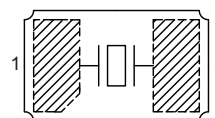
## Equivalent Series Resistance

Fundamental	
32.768 kHz	90kΩ Max.

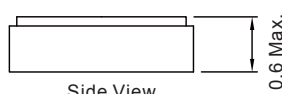
## Dimensions [mm]



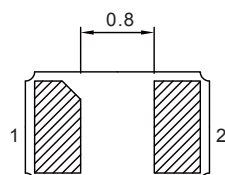
Top View



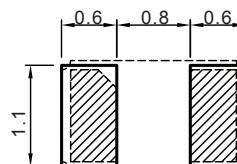
Top View Crystal Connection



Side View



Bottom View



Top View Suggested Layout