

Ceramic SMD Crystal Unit

Precision type
Ceramic Package
Miniature

Pb-free : RoHS compliance



TT-3215S

■ Typical applications

- Cordless Telephones. Coputer Clocks. DVC. OA. AV. etc.

■ Features

- 32.768 KHz.
- Precision type Vacuum sealed unit.
- Ultra miniature type essential in the high density PCB.
- Package : Metal lid + Ceramic package.
3.2×1.5×0.75mm

■ Specifications

Model	TT - 3215S	
Frequency Range [Fr]	32.768 KHz	Fundamental
Frequency Tolerance (max) [dF/F]	±20.0ppm	at 25±3° C
Frequency Temperature Stability (max)	-0.034±0.006 ppm / ° C ²	
Operating Temperature Range	-40 to +85° C	
Storage Temperature Range	-55 to +125° C	
Equivalent Series Resistance (max) [Rr]	65 KΩ max.	
Load Capacitance (typical) [CL]	12.5 pF	
Parallel Capacitance (max) [Co]	1.5 pF max.	
Drive Level (typical) [DL]	0.1 μW	

■ Environmental Characteristics

Description	Specification
Aging (at 25° C)	±3.0 ppm max / Year (at 25° C)
Fall Shock	Test : 3 time free drop onto concrete board from 150cm high Result: ±5.0 ppm max.
Vibration Shock	Test : Freq. 5-500Hz, Amplitude 1.5mm, Test time 4cycles/XYZ axis Result: ±5.0 ppm max.
Solderability	Test : Immersed into solder bath at 235±° C for 3 sec. Result: More than 95%
Humidity	Test : 90 to 95%RH at 60±3° C±500 hours Result: ±5.0 ppm max.
Reflow Heat	Test : 2 times of IR reflow soldering in accordance with reflow temperature profile as per the document No.:TR-0531 Result: ±5.0 ppm max.

■ Outline Drawing & Suggested Pad

