

# CRYSTAL UNIT



## CH-206/CH-308 (Cylinder Type) CS-306/CS-406 (SMD Type)

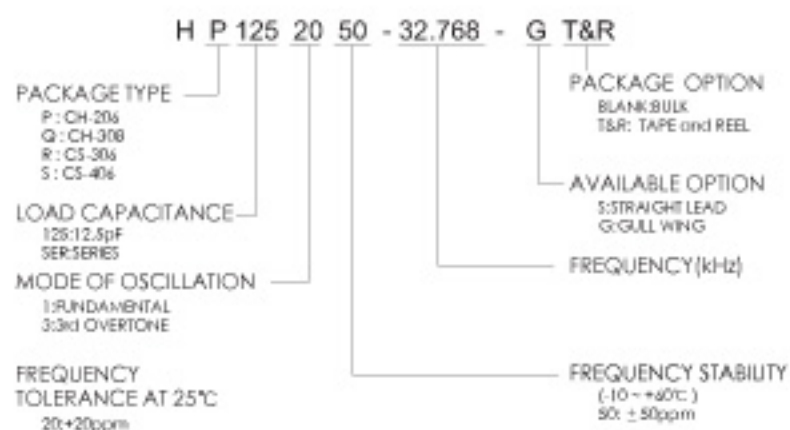
- Photolithography finished allows uniform stable performance
- Excellent shock resistance and environmental capability
- Low power consumption
- Suitable for time-keeping of clock and microcomputer



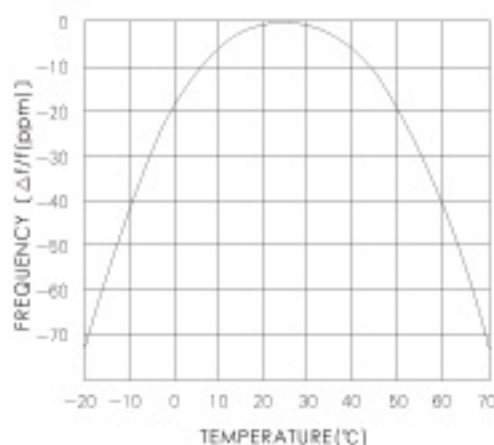
### ELECTRICAL SPECIFICATIONS

Nominal Frequency Range	32.768KHz
Operating Temperature Range	-10 to +60°C [STD]
Storage Temperature Range	-20 to +70°C
Frequency Tolerance (at 25°C)	± 20 [STD], ± 50ppm
Peak Temperature(frequency)	25 ± 5°C
Temperature Coefficient (frequency)	- 0.04ppm/°C <sup>2</sup> Max
Load Capacitance(C <sub>L</sub> )	6pF to ∞
Drive Level	1.0μW Max
Series Resistance	500 kΩ Max
Motional Capacitance	1.80 to 2.10pF
Shunt Capacitance(C <sub>0</sub> )	0.80 to 0.90pF
Insulation Resistance	500 MΩ Min
Aging(at 25°C)	± 3.0ppm/year Max

### PART NUMBERING GUIDE



### FREQUENCY VS. TEMPERATURE CURVE

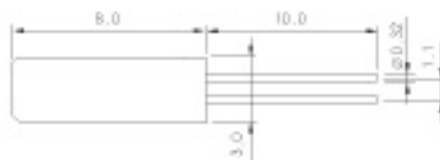


## MECHANICAL DIMENSIONS

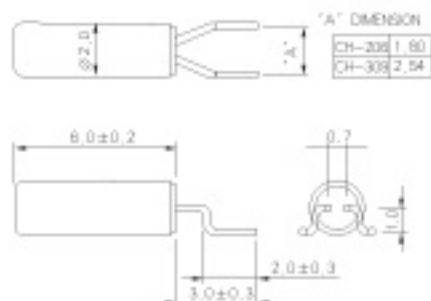
### CH-206



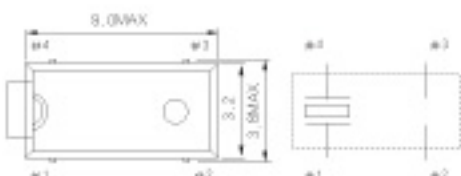
### CH-308



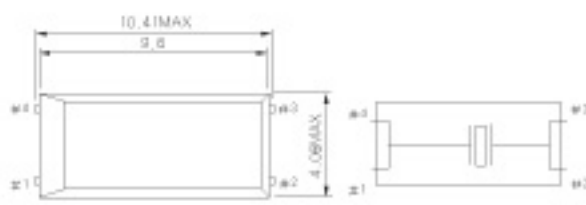
### GULL WING



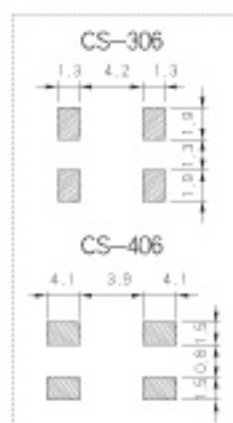
### CS-306



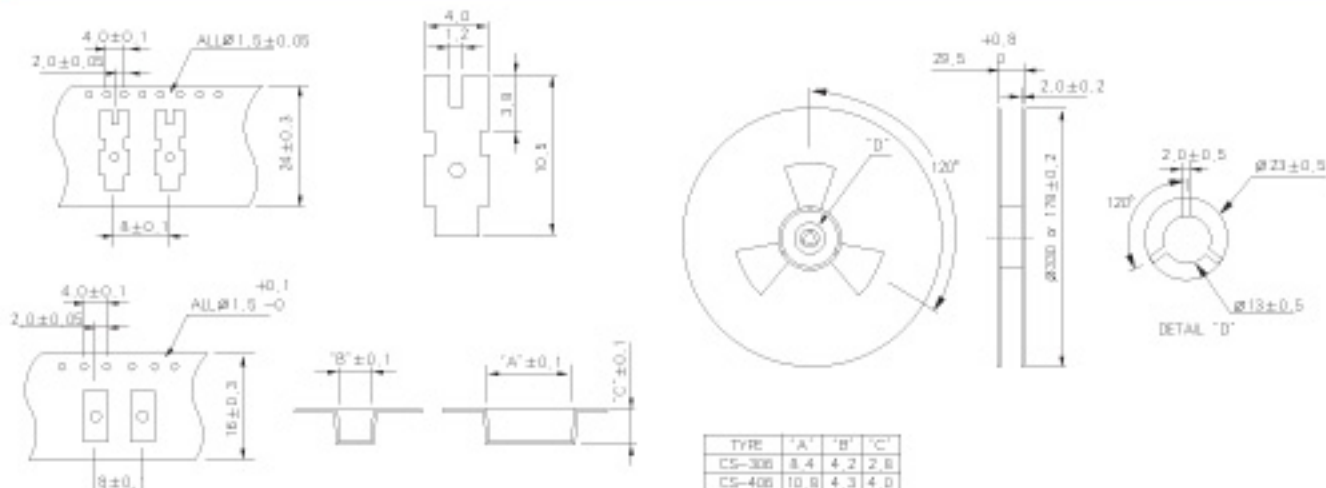
### CS-406



### LAND PATTERN



## TAPE AND REEL DIMENSIONS



## ENVIRONMENTAL / MECHANICAL SPECIFICATIONS

PARAMETER	SPECIFICATIONS
Shock Resistance	Drop tests consist of three drops onto a hard wooden board from a height of 75cm. Alternatively, three-directional excitation tests are performed with 1/2 sine wave of 3.000G for a duration of 0.3 msec.
Soldering Condition (Cylinder Type)	Lead wire should be soldered within 10 seconds with the iron heated to a tip temperature no higher than 270°C.

