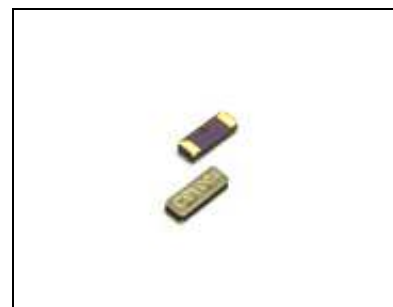


## ■ Features

- ★ Appropriate for high density circuit board
- ★ Highly stable characteristics
- ★ Suitable for small mobile telecommunication devices

## ■ Application

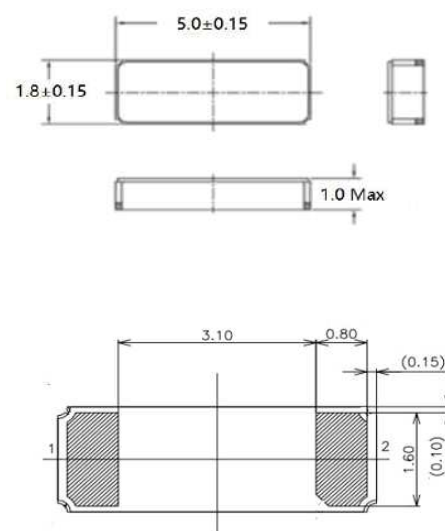
- ★ Watch and Clock
- ★ Remote Control
- ★ Telecommunication equipment
- ★ Consumer Electronics
- ★ Instrumentation
- ★ Audio/Video



## ■ Specification (Characteristics)

| Item                        | Specification             |
|-----------------------------|---------------------------|
| Frequency Range             | 32.768 KHz                |
| Load Capacitance            | 7 pF, 9 pF, 12.5 pF       |
| Drive Level                 | 1.0 μW Max.               |
| Frequency Tolerance         | ±20 ppm                   |
| Series Resistance           | 70 KΩ Max                 |
| Turnover Temperature        | -25 ± 5 °C                |
| Temperature Coefficient     | -0.04 ppm/°C <sup>2</sup> |
| Operating Temperature Range | -40 ~ +85 °C              |
| Storage Temperature Range   | -40 ~ +85 °C              |
| Motional Capacitance        | 0.0028 pF Typical         |
| Shunt Capacitance           | 1.5 pF Typical            |
| Packing Unit                | 3000 pcs/reel             |

## ■ Dimension (Unit: mm)



## ■ Part Number and Ordering

| Part Number Code | Holder Type + Frequency + Tolerance + CL |
|------------------|--|
| Ordering Code    | Same as Above                            |
| Example          | ZM519S-32.768K-20-12.5P                  |