

## Research for Frequency Products

### Description

This is DT-cut tuning fork type crystal unit, SEAM seal ceramic package under vacuum environment. This crystal is suitable for Universal applications in Watches, Computer LED clock, alarm, .... frequency 32.768KHz ( $1 \times 2^{13}$ ). Parabolic curve of temperature coefficient. Parts are supplied 3000pcs in tape and reel as standard.

### Features

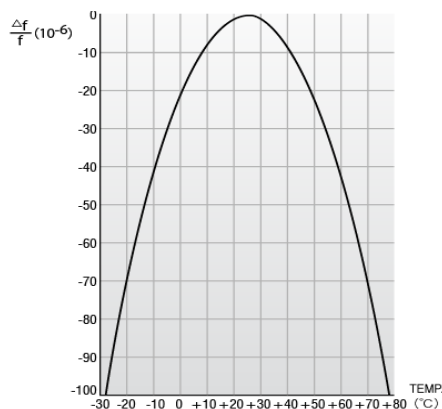
SMD Ceramic type for high population assembly  
Ultra light weight  
High stable with vacuum sealing

**RoHS Complaint**

### Standard Parameters

| Parameter                         | Specifications                |
|-----------------------------------|-------------------------------|
| Frequency Range                   | 32.768KHz                     |
| Vibration Mode                    | DT-Cut, Fundamental           |
| Frequency Tolerance @25°C         | ±20ppm                        |
| Frequency Stability vs Temp Range | -0.04ppm/°C <sup>2</sup> Max. |
| Operating Temp. Range             | -40 ~ +85 °C                  |
| Load Capacitance                  | 12.5pF (std)                  |
| Drive Level                       | 1.0μW Max.                    |
| Shunt Capacitance                 | 2.0pF Max.                    |
| Equivalent Series Resistance      | 70,000Ω Max.                  |
| Aging per year                    | ±3ppm                         |
| Storage Temp. Range               | -40 ~ 125 °C                  |

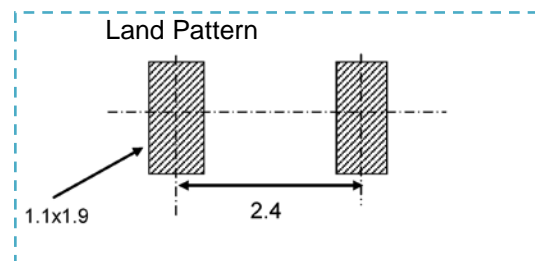
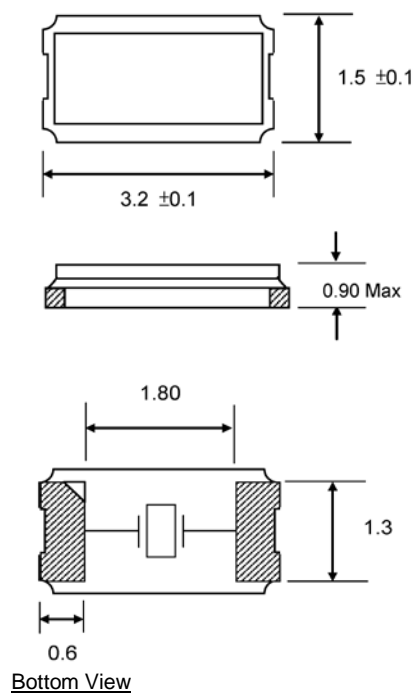
### Frequency vs Temp. Deviation Characteristics



**Crystal Unit Tuning Fork**  
SMD 3.2x1.5x0.9mm  
32.768KHz



### Outlines and Dimensions



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