

**6G**

[ 6.0×3.5×1.00 mm ]

**6F**

[ 7.0×5.0×1.00 mm ]

**Surface Mount Crystals**

6G, 6F

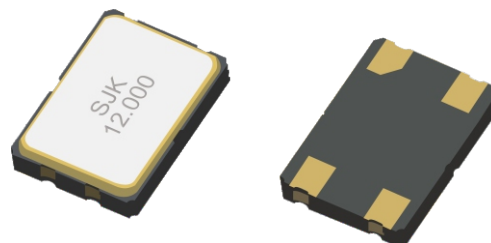
Fundamental /3rd

Frequency Range

6MHz~160MHz

## Features

- Small size SMD crystal units with 6.0×3.5 (6035), 7.0×5.0 (7050), seam sealed package.
- 2-Pads package for 6035, 4-pads package for 6035 and 7050
- The tight tolerance and tight stability crystal is ideal for communications.
- The crystal package will withstand solder reflow.
- Applications: Telecommunication, PC and peripherals, Radio communications, Machine, Smart grid, Factory automation, etc.
- RoHS Compliant / Pb-Free



## Standard Specifications

| Item / Type                   | 6G (6.0×3.5×1.00 mm)             | 6F (7.0×5.0×1.00 mm)    |
|-------------------------------|----------------------------------|-------------------------|
| Frequency Range               | 8~100 MHz(Fund. /3rd)            | 6~160 MHz (Fund. / 3rd) |
| Load Capacitance              | 10pF~32pF, or specify            |                         |
| Drive Level                   | 10 μW typical (200 μW max.)      |                         |
| Frequency Tolerance (at 25°C) | ± 10ppm, ±20ppm or ±30ppm (max.) |                         |
| Aging                         | ±3ppm / Year (max.)              |                         |
| Storage Temperature Range     | -55°C~+125°C                     |                         |

## ESR (Equivalent Series Resistance)

| 6G (6.0×3.5×1.00 mm) |            | 6F (7.0×5.0×1.00 mm) |            |
|----------------------|------------|----------------------|------------|
| Frequency Range      | E.S.R      | Frequency Range      | E.S.R      |
| 8.0~10.0MHz          | 150 Ω max. | 6.0~10.0 MHz         | 120 Ω max. |
| 10.0~12.0MHz         | 80 Ω max.  | 10.0~12.0 MHz        | 60 Ω max.  |
| 12.0~50.0MHz         | 50 Ω max.  | 12.0~30.0MHz         | 50 Ω max.  |
| 50.0~100.0MHz        | 80 Ω max.  | 30.0~50.0 MHz        | 30 Ω max.  |
|                      |            | 50.0~90.0 MHz        | 50 Ω max.  |
|                      |            | 90.0~160.0 MHz       | 100 Ω max. |

## Frequency stability Vs Operating temperature range

| ppm<br>Temp. (°C) | ±5 | ±10 | ±15 | ±20 | ±25 | ±30 |                                                    |
|-------------------|----|-----|-----|-----|-----|-----|----------------------------------------------------|
| -10~+60           | ▲  | ○   | ○   | ○   | ○   | ○   | ▲: Conditional<br>○: Available<br>✕: Not available |
| -20~+70           | ✕  | ○   | ○   | ○   | ○   | ○   |                                                    |
| -40~+85           | ✕  | ✕   | ○   | ○   | ○   | ○   |                                                    |

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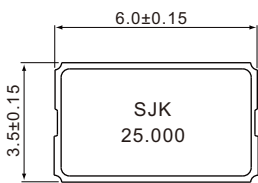
**Surface Mount Crystals**

6G, 6F

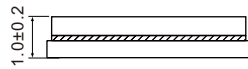
**Fundamental /3rd**
**Frequency Range**
**6MHz~160MHz**

## Outline Dimensions (Unit: mm)

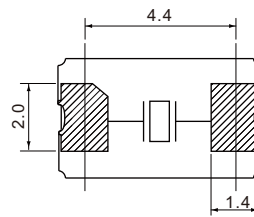
### 6G (6.0×3.5×1.00 mm) -2 pads



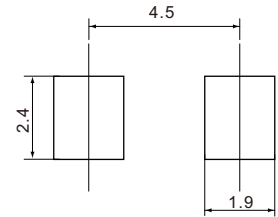
Top View



Side View

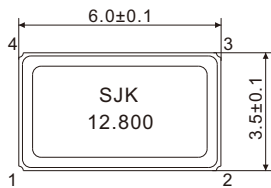


Bottom View

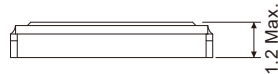


Top View Suggested Layout

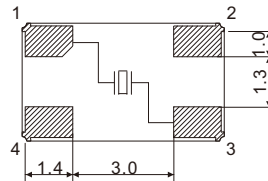
### 6G (6.0×3.5×1.20 mm) -4 pads



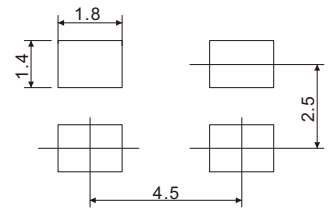
Top View



Side View

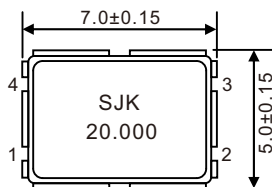


Bottom View

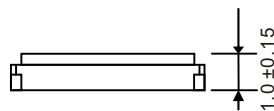


Top View Suggested Layout

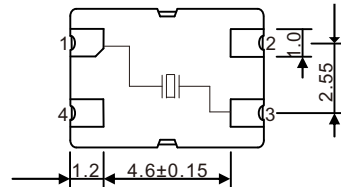
### 6F (7.0×5.0×1.00 mm)



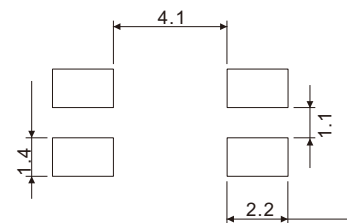
Top View



Side View



Bottom View



Top View Suggested Layout