

**7S**

[ 1.2×1.0×0.30 mm ]

**7Y**

[ 1.6×1.2×0.35 mm ]

**7F**

[ 2.0×1.6×0.50 mm ]

**Surface Mount Crystals**

7S, 7Y, 7F

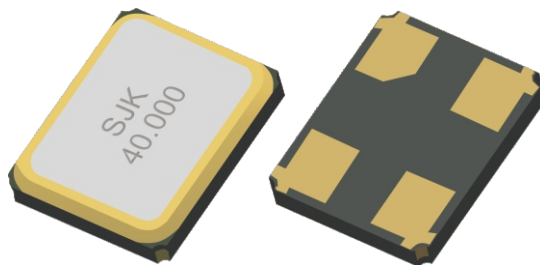
**Fundamental**

Frequency Range

**16MHz~96MHz**

## Features

- Ultra smallest size SMD crystal units with 1.2×1.0 (1210), 1.6×1.2 (1612), 2.0×1.6 (2016).
- The entire package can be grounded via the top metal lid and the bottom pads
- Small footprint. Ideal for space constrained applications
- Exhibits extremely low aging with a high shock & vibration resistance
- Applications: Smart phone, IoT, Wireless communications, Bluetooth, Mobile communications, etc.



## Standard Specifications

Item / Type	<b>7S</b> (1.2×1.0×0.30 mm)	<b>7Y</b> (1.6×1.2×0.35 mm)	<b>7F</b> (2.0×1.6×0.50 mm)
Frequency Range	26~96 MHz (Fund.)	24~96 MHz (Fund.)	16~96 MHz (Fund.)
Load Capacitance	6pF~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)

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Frequency Range	E.S.R	Frequency Range	E.S.R	Frequency Range	E.S.R
26.0~32.0 MHz	150 Ω max.	24.0~32.0 MHz	150 Ω max.	16.0~21.0 MHz	200 Ω max.
32.0~60.0 MHz	100 Ω max.	32.0~38.0 MHz	100 Ω max.	21.0~25.0 MHz	100 Ω max.
60.0~76.8 MHz	80 Ω max.	38.0~80.0 MHz	80 Ω max.	25.0~41.0 MHz	80 Ω max.
76.8MHz / 80MHz / 96MHz	60 Ω max.	80.0~96.0 MHz	40 Ω max.	41.0~96.0 MHz	60 Ω max.

## Frequency stability Vs Operating temperature range

Temp. (°C)	ppm					
	±5	±10	±15	±20	±25	±30
-10~+60	▲	○	○	○	○	○
-20~+70	×	○	○	○	○	○
-40~+85	×	×	○	○	○	○

▲: Conditional  
○: Available  
×: Not available

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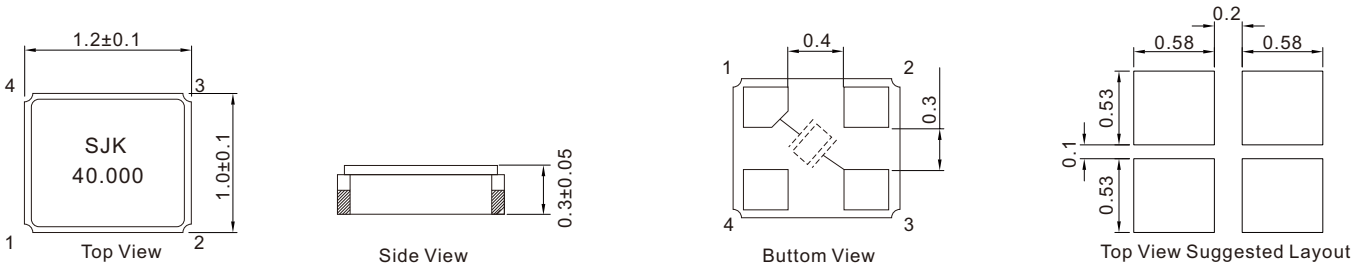
**Fundamental**

Frequency Range

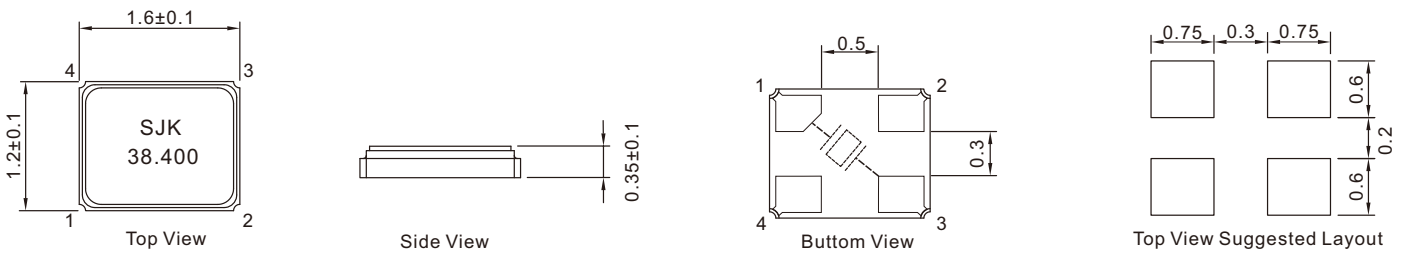
**16MHz~96MHz**

**Outline Dimensions (Unit: mm)**

**7S (1.2×1.0×0.30 mm)**



**7Y (1.6×1.2×0.35 mm)**



**7F (2.0×1.6×0.50 mm)**

