

**S7**

[ 1.2×1.0×0.30 mm ]

**Y7**

[ 1.6×1.2×0.35 mm ]

**F7**

[ 2.0×1.6×0.50 mm ]

**Surface Mount Crystals**

S7, Y7, F7

**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>S7</b> (1.2×1.0×0.30 mm)	<b>Y7</b> (1.6×1.2×0.35 mm)	<b>F7</b> (2.0×1.6×0.50 mm)
Frequency Range	24~54 MHz (Fund.)	24~60 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)

<b>S7</b> (1.2×1.0×0.30 mm)	
Frequency Range	E.S.R
24~27.12MHz	150 Ω max.
27.12~38.4MHz	100 Ω max.
38.4~54MHz	60 Ω max.

<b>Y7</b> (1.6×1.2×0.35 mm)	
Frequency Range	E.S.R
24~30 MHz	100 Ω max.
30~60 MHz	80 Ω max.

<b>F7</b> (2.0×1.6×0.50 mm)	
Frequency Range	E.S.R
16~19.2 MHz	150 Ω max.
19.2~30 MHz	100 Ω max.
30~60MHz	80 Ω max.
60~96 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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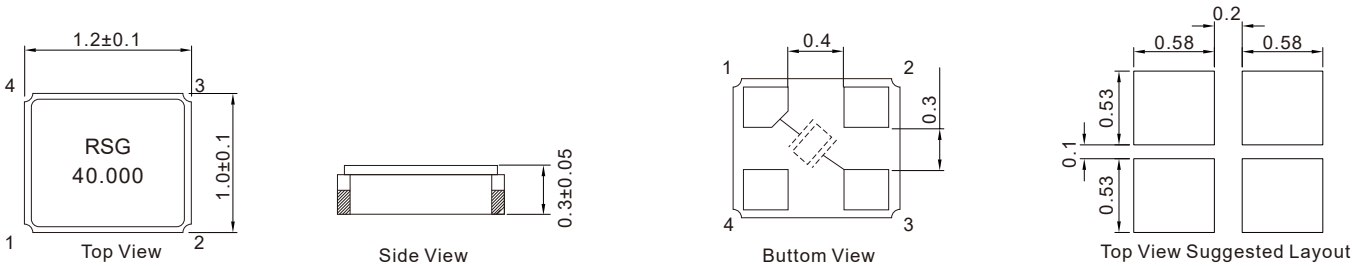
**Fundamental**

Frequency Range

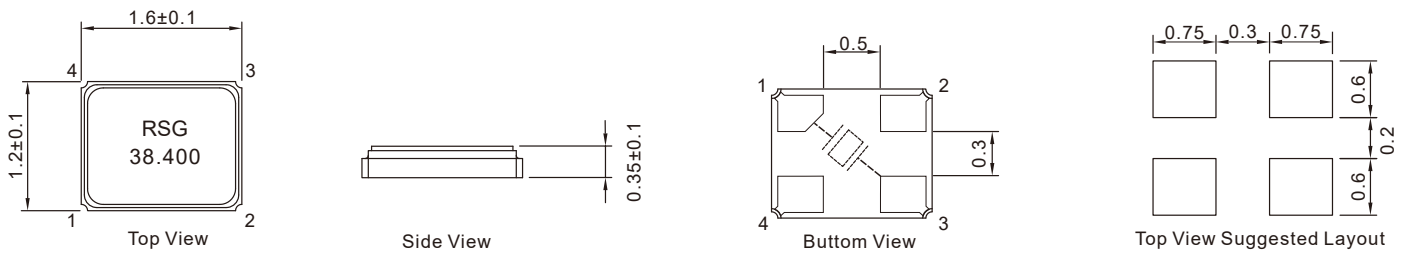
**16MHz~96MHz**

### Outline Dimensions (Unit: mm)

#### S7 (1.2×1.0×0.30 mm)



#### Y7 (1.6×1.2×0.35 mm)



#### F7 (2.0×1.6×0.50 mm)

