



Ph Free

RoHS Compliant

## Features

- Crystal unit for Consumer Products
- Metal package, leaded type
- A resistance weld hermetic sealed type
- Suitable for high density assembly and mass production

## Applications

- Digital Electronics
- Consumer Products
- Car audio and accessories

## How to Order

HC49SFWB 03200

①                      ②                      ③                      ④                      ⑤                      ⑥                      ⑦

- ① Series                      ② Frequency  
 ③ Load Capacitance    ④ Frequency Stability  
**H0** 12 pF    Std.    **P**  $\pm 50 \times 10^{-6}$     Std.  
 ⑤ Operating Temp. Range    ⑥ Frequency Temp. Stability  
**ES** -10 to +70°C     $\pm 50 \times 10^{-6}$     Std.  
 ⑦ Individual Specification... Std.Spec. as "ZZ"

## Specifications

Item	Symbol	Specification	Units	Remarks
Frequency Range	f <sub>nom</sub>	3200 to 33999	30 to 60 (MHz)	kHz
Overtone Order	OT	Fundamental	3rd. Overtone	—
Load Capacitance	CL	12		pF
Frequency Stability	f <sub>tol</sub>	±50		×10 <sup>-6</sup> @ 25°C
Motional Series Resistance	R1	Table 1		ohm
Drive Level	DL	Table 2		μW
Operating Temp. Range	T <sub>use</sub>	-10 to +70		°C
Storage Temp. Range	T <sub>stg</sub>	-40 to +85		°C
Frequency Temp. Characteristics	f <sub>tem</sub>	±50		×10 <sup>-6</sup> ref. @ 25°C over operating temperature range

\* Please contact us for other specifications.

### Table1 Motional Series Resistance    Table2 Level of Drive

Frequency Range	Motional Series Resistance	Units
3200 to 3499kHz	300 max.	ohm
3500 to 4099kHz	150 max.	
4100 to 4799kHz	120 max.	
4800 to 5999kHz	100 max.	
6000 to 11999kHz	90 max.	
12000 to 13499kHz	70 max.	
13500 to 33999kHz	50 max.	
30 to 60MHz	150 max.	

Frequency Range	Drive Level	Units
3200 to 15999kHz	10 (500 max.)	μW
16000 to 24999kHz	10 (300 max.)	
25000 to 33999kHz	10 (100 max.)	
30 to 60MHz	10 (300 max.)	

## Typical Frequencies and Part Numbers

Frequency (kHz)	Standard Part Number
3200.000	HC49SFWB03200H0PESZZ
3579.545	HC49SFWB03579H0PESZZ
3686.400	HC49SFWB03686H0PESZZ
4000.000	HC49SFWB04000H0PESZZ
4194.304	HC49SFWB04194H0PESZZ
4332.000	HC49SFWB04332H0PESZZ
4433.619	HC49SFWB04433H0PESZZ
4500.000	HC49SFWB04500H0PESZZ
4915.200	HC49SFWB04915H0PESZZ
6000.000	HC49SFWB06000H0PESZZ
6144.000	HC49SFWB06144H0PESZZ
7200.000	HC49SFWB07200H0PESZZ
7372.800	HC49SFWB07372H0PESZZ
8000.000	HC49SFWB08000H0PESZZ
10000.000	HC49SFWB10000H0PESZZ
10738.635	HC49SFWB10738H0PESZZ
11000.000	HC49SFWB11000H0PESZZ
11059.200	HC49SFWB11059H0PESZZ
12000.000	HC49SFWB12000H0PESZZ
12288.000	HC49SFWB12288H0PESZZ
13500.000	HC49SFWB13500H0PESZZ
14318.180	HC49SFWB14318H0PESZZ
16000.000	HC49SFWB16000H0PESZZ
16934.400	HC49SFWB16934H0PESZZ
17280.000	HC49SFWB17280H0PESZZ
17734.476	HC49SFWB17734H0PESZZ
20000.000	HC49SFWB20000H0PESZZ
21477.270	HC49SFWB21477H0PESZZ
24000.000	HC49SFWB24000H0PESZZ
24576.000	HC49SFWB24576H0PESZZ
25000.000	HC49SFWB25000H0PESZZ
27000.000	HC49SFWB27000H0PESZZ

## Dimensions

(Unit: mm)

