

for Automotive



Features

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

Applications

- Engine Control

How to Order

CX49LPWA 06000

① ② ③ ④ ⑤ ⑥ ⑦

- ① Series
- ② Frequency
- ③ Load Capacitance
- ④ Frequency Stability
- ⑤ Operating Temperature Range
- ⑥ Frequency Temperature Stability
- ⑦ Individual Specification

Typical Frequencies

Code	Frequency (kHz)
04000	4000.000
05000	5000.000
06000	6000.000
08000	8000.000
10000	10000.000
12000	12000.000
16000	16000.000
18000	18000.000
20000	20000.000

Specifications

Item	Symbol	Specification	Units	Remarks
Frequency Range	f _{nom}	3200 to 20000	kHz	
Overtone Order	OT	Fundamental	—	
Frequency Tolerance	f _{tol}	±100	×10 ⁻⁶	@ 25°C
Frequency Temp. Characteristics	f _{tem}	±200	×10 ⁻⁶	ref. @ 25°C Over Operating Temp. Range
Motional Series Resistance	R1	Table 1	ohm	
Level of Drive	DL	Table 2	μW	
Load Capacitance	CL	12	pF	
Operating Temp. Range	T _{use}	-40 to +125	°C	
Storage Temp. Range	T _{stg}	-40 to +125	°C	

* Please inquire about specifications other than the above.

Table1 Motional Series Resistances

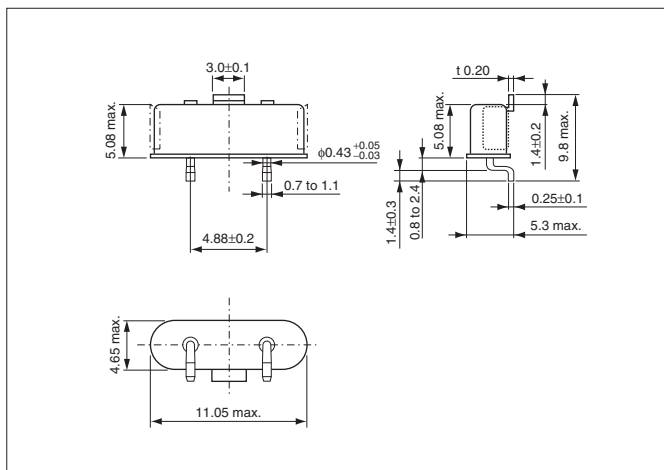
Frequency Range	Motional Series Resistance	Units
3200 to 3499kHz	300 max.	ohm
3500 to 4099kHz	150 max.	
4100 to 4799kHz	120 max.	
4800 to 5999kHz	100 max.	
6000 to 11999kHz	90 max.	
12000 to 13499kHz	70 max.	
13500 to 20000kHz	50 max.	

Table2 Level of Drive

Frequency Range	Level of Drive	Units
3200 to 15999kHz	10 (500 max.)	μW
16000 to 20000kHz	10 (300 max.)	

Dimensions

(Unit: mm)



Recommended Land Pattern

(Unit: mm)

