



**Pb Free**

**RoHS Compliant**

**Features**

- Crystal Unit for Audio & Visual, Office Equipment.
- Metal package, lead type.
- A resistance weld hermetic sealed type.
- Suitable for high density assembly and mass production.

**Applications**

- Digital electronics
- Audio & visual, Office equipment

**Standard Frequencies**

(kHz)

3200.000	7200.000	14318.180
3579.545	7372.800	16000.000
3686.400	8000.000	16934.400
4000.000	10000.000	17280.000
4194.304	10240.000	17734.476
4332.000	10738.635	20000.000
4433.619	11000.000	21477.270
4500.000	11059.200	24000.000
4915.200	12000.000	24576.000
6000.000	12288.000	25000.000
6144.000	13500.000	27000.000

(MHz)

29.491200	35.328000	50.000000
32.000000	40.000000	54.000000
33.868800	48.000000	60.000000

\* Please inquire about frequencies other than the above.

**Specifications**

Items	Symbol	Specification	Units	Remarks
Frequency Range	Fo	3200~33999kHz	30~60 (MHz)	kHz
Overtone Order	—	Fundamental	3rd Overtone	—
Frequency Tolerance	$\Delta F/F$	$\pm 50$	ppm	@ 25°C
Frequency Temperature Characteristics	$\Delta F/T$	$\pm 50$	ppm	ref@ 25°C Over Operating Temp Range
Motional Series Resistance	Cl	Table 1	ohm	
Level of Drive	—	Table 2	$\mu W$	
Load Capacitance	CL	12	pF	
Operating Temp. Range	T <sub>OPR</sub>	-10~+70	°C	
Storage Temp. Range	T <sub>STG</sub>	-40~+85	°C	

\* Please inquire about specifications other than the above.

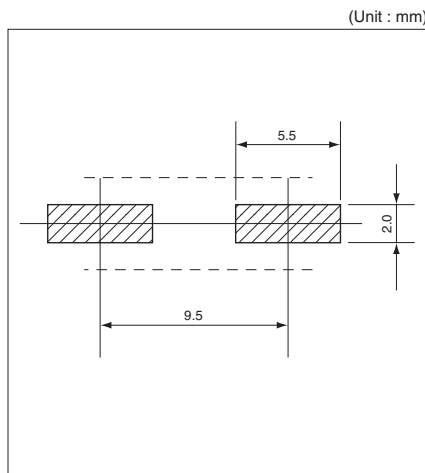
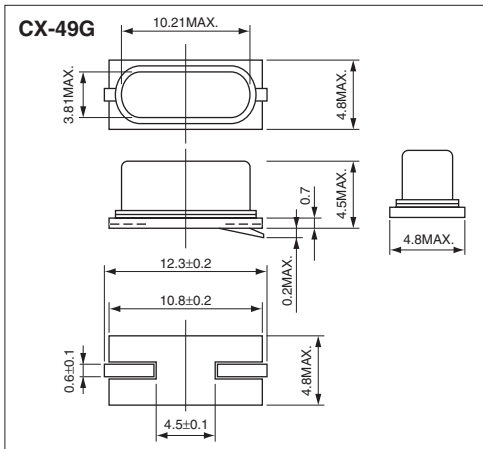
**Table1 Motional Series Resistances**

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

**Table2 Level of Drive**

Frequency Range	Level of Drive	Units
3200~15999kHz	10(500 max.)	$\mu W$
16000~24999kHz	10(300 max.)	
25000~33999kHz	10(100 max.)	
30~60MHz	10(300 max.)	

**Dimensions**



**Recommended Land Pattern**

(Unit: mm)

