



SHENZHEN JINGFENG
CRYSTAL TECHNOLOGY CO., LTD.

Specifications for Quartz Crystal Unit.

Part No.: JF10.000M9S20F3050E3BK

Holder Type: HC-49S

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SPECIFICATIONS FOR QUARTZ CRYSTAL UNIT.

Part Number: JF10.000M9S20F3050E3BK

1. SCOPE.

This specification shall cover the characteristics of the Quartz Crystal with 10.000 MHz

2. CUSTOMER NO. :

2-1 Application. :

2-2 Holder Type. : HC-49S Package.

2-3 Mode of Oscillation. : AT-Cut, Fundamental.

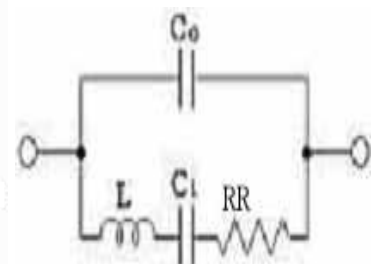
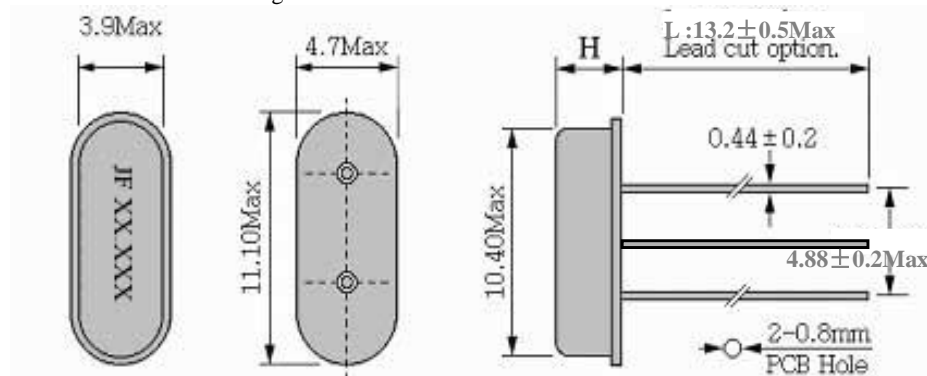
3. ELECTRICAL CHARACTERISTICS.

No.	Item.	Specification.
3-1	Nominal Center Frequency. (Fo)	10.000000MHz
3-2	Load Capacitance. (pF)	20pF
3-3	Frequency Tolerance at 25°C ±2°C. (ppm)	±30 ppm Maximum. (RT/ppm)
3-4	Stability Temperature Characteristics. (ppm)	±30 ppm Maximum. (TC/ppm)
3-5	Operating Temperature Range. (°C)	-40°C ~ +85°C
3-6	Storage Temperature Range. (°C)	-40°C ~ +85°C
3-7	Equivalent Resistance. (Ω)	≤ 60Ω Maximum.
3-8	Drive Level. (uW)	≤ 10 uW
3-9	Shunt Capacitance. (pF)	≤ 7.0 pF Maximum.
3-10	Insulation Resistance. (Ω)	DC 100V ± 15V. / ≥500 MΩ Minimum.
3-11	Aging.	±5 ppm / Year.

4. DIMENSIONS and MARKING. (Unit : mm, HC-49S, H : 13.2±0.5mm)

4-1 Dimensions and Marking.

4-2 Equivalent Schematic.



4-3 Marking System

Marking : JF10.000

- 1) JF : Company logo. (J, JF, SZJF)
- 2) 10.000 : Center frequency. (MHz)
- 3) Ink color : Black (Laser marking option)

5. MECHANICAL CHARACTERISTICS.

No.	Item.	Condition of Test.
5-1	Shock Test.	The crystal unit is dropped from the height of 30cm in free fall condition on a 30mm-thick hard wood board for 3 times. Test of hermetic ability no bubble in water at $80^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 3 minutes.
5-2	Vibration Test.	Subject the electrical characteristics should be $\pm 5\text{ppm}$ in measurement of frequency and $\pm 15\%$ if the measurement of resistance.
5-3	Solder-ability Test.	Dip the quartz crystal unit terminal no closer than 1.5mm into the solder bath at $230^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 5 ± 1 sec. More than 95% of the terminals surface shall be covered with the solder.
5-4	Resistance to the Solder Heat.	The temperature shall be $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$, immersion duration shall be 10 seconds. Using a heat shunt board. And then the quartz crystal unit shall be released to standard room temperature condition for 1 hour before with measurement shall be made. Electric characteristics shall be satisfy the spec.
5-5	Moisture.	Keep the quartz crystal unit at $60^{\circ}\text{C} \pm 2^{\circ}\text{C}$ and 90% RH for 96 hours. Then release the crystal unit in to the room condition for 1 hours prior to the measurement. It shall fulfill the spec.
5-6	High Temperature Exposure.	Subject the quartz crystal unit to $70^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 96 hours. Then release the crystal unit in to the room condition for 1 hours prior to the measurement. It shall meet the spec.
5-7	Low Temperature Exposure.	Subject the quartz crystal unit to $-20^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 96 hours. Then release the crystal unit in to the room condition for 1 hours prior to the measurement. It shall meet with the tolerance of the spec.
5-8	Hermetical Test.	No bubble in water at $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 3 minutes.
5-9	Lead Pulling Test.	Weight along with the direction of lead without any shock -0.9 kg for 5~10 seconds. The product shall show no evidence damage and shall satisfy the initial electric characteristics.
5-10	Lead Bending Test.	Lead shall be subject to withstand against bending of 90°C twice at it's stem. And then the lead shall show no evidence damage and shall satisfy the initial electric characteristics. The quartz crystal unit shall be held by it's body in such a manner that the axes of it's terminal are vertical. A mass having 0.45kg shall be inclined through an angle of 90° in the vertical plane, taking 2 seconds. There should be no damage in the lead and any change in electric characteristics.

6. SEALING.

The quartz crystal unit shall be immersed in water at a temperature of 80°C or higher.

Inspection shall be made after 5 minutes while the crystal unit still in the water.

Without leakage as determined by repetitive bubbles ember from the crystal unit.

单击下面可查看定价，库存，交付和生命周期等信息

[>>JF\(晶峰\)](#)