# SHENZHEN SHIJING ELECTRONIC CO, LTD.

# CRYSTAL UNIT SPECIFICATIONS

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**THIS SPECIFICATION SHEET IS PROVIDED TO:**

For specifying specifications of following product:

**JBS25.000MHZ** _____

**(SHIJING Part Number)** **(Your Part Number)**

This document contains:



Appendix Attached to this specification sheet is as follows:

Room Temperature Test Data: 1 Pages
TC Test Data: 0 Pages

| | |
|---|---|
| Prepared By:<br><br>Checked By: | CONFIRMED BY:<br><br>For future reference, we thank you to confirm the specifications and send one copy back to us. |

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# CRYSTAL UNIT SPECIFICATIONS

## ● ELECTRICAL PARAMETERS

| No. | Characteristic | Limits | Remark |
|---|---|---|---|
| 1 | Nominal Frequency | 25.00000MHz | |
| 2 | Mode of Vibration | Fundamental | |
| 3 | Frequency Tolerance | ±10ppm | Measure at 25℃±3℃ |
| 4 | Operating Temperature Range | -20℃~+70℃ | |
| 5 | Frequency Stability | ±20ppm | Over Operating Temperature Range |
| 6 | Storage Temperature Range | -40℃~+85℃ | |
| 7 | Load capacitance | 20pF | |
| 8 | Equivalent Series Resistance | 40Ω max | |
| 9 | Drive Level | 100μW max | |
| 10 | Insulation Resistance | 500MΩ | At 100$V_{DC}$ |
| 11 | Shunt Capacitance | 7pF | |
| 12 | Motional Capacitance | | |
| 13 | Aging Per Year | ±3ppm | First Year |
| 14 | Resistance Variation vs. Drive Level | | |
| 15 | Frequency Variation vs. Drive Level | | |
| 16 | Package Type | HC-49S | See Page 4 |

- **RELIABILITY SPECIFICATIONS**

| No. | Test Item | Test Conditions | Reference |
|---|---|---|---|
| 1 | High Temperature Storage | Temperature: 125℃±10℃<br>Time: 1000±24 Hours | MIL-STD-883E |
| 2 | Temperature Cycle | Temperature 1: -55℃±10℃<br>Temperature 2: 125℃±10℃<br>Temperature change between T1 and T2 at soonest<br>Run 10 cycles, maintain T1 and T2 10 minutes each in one cycle | MIL-STD-883E |
| 3 | Solder Heat Resistance | Pre-heat: 125℃ 60~120 Seconds<br>Solder Temperature: 260℃±10℃<br>Time: 10 Seconds | MIL-STD-202F |
| 4 | Drop Test | 3 Times Free Fall from 75cm height table to 3cm thickness hard wood board | MIL-STD-202F |
| 5 | High Temperature, High Humidity Storage | Temperature: 85℃<br>Relative Humidity: 85%<br>Time: 1000 Hours | MIL-STD-883E |
| 6 | Steam Aging | Temperature: 97℃<br>Time: 8 Hours<br>230℃ solder pot to check solderability | MIL-STD-883E |
| 7 | Solderability | Dip in flux 5~10 seconds<br>Temperature: 230℃±10℃<br>Time: 3 Seconds | MIL-STD-883E |
| 8 | Aging | Temperature: 85℃<br>Time: 300 Hours | MIL-STD-883E |
| 9 | Thermal Shock | Temperature 1: -55℃±10℃<br>Temperature 2: 125℃±10℃<br>Temperature change between T1 and T2: 5 seconds<br>10 cycles, maintain T1 and T2 for 30 minutes each in one cycle | MIL-STD-202F |
| 10 | Vibration | Frequency Range: 10Hz~2000Hz<br>Amplitude: 1.5mm<br>40mins in each direction, total 120mins | MIL-STD-883E |

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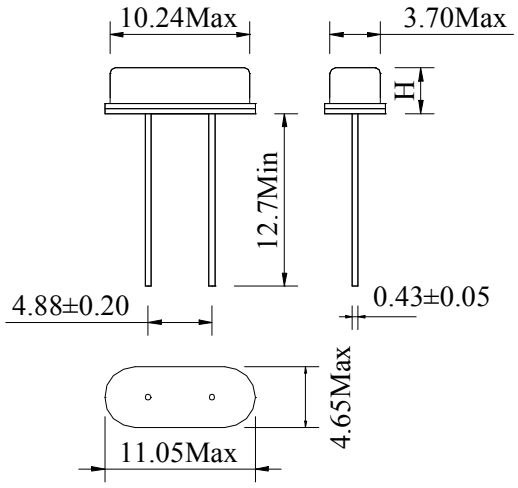
# CRYSTAL UNIT SPECIFICATIONS

- **Outline Dimensions (unit: mm)**




| Part | H |
|---|---|
| HC-49SA | 3.5mm Max |
| HC-49SB | 2.5mm Max |

- **MARKING**


First 6 Digitals: Frequency in Mhz

H: SJ

3: Year 2006

X: Month Code

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | B | C | D | E | F | G | H | I | J | K | L |

**FOR EXAMPLE : JBS25.0000M**

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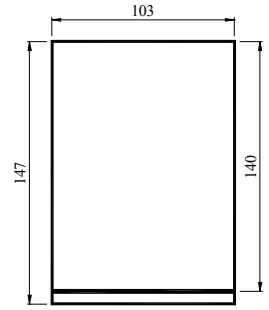
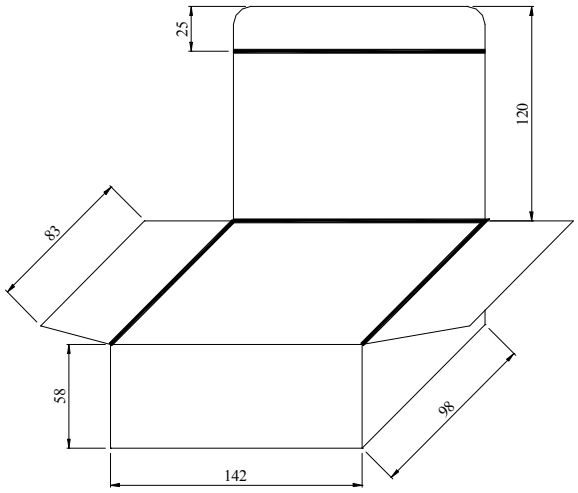
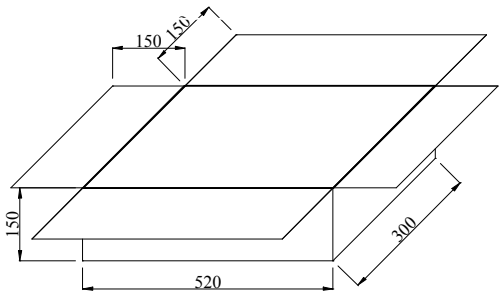
CRYSTAL UNIT SPECIFICATIONS

**Package (units : mm)**

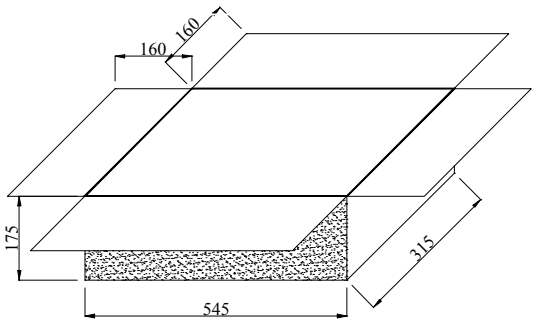



200 PCS = 1 BAG




5 BAGS = 1 INNER BOX




* 20 K PCS = 1 OUTER BOX
20 INNER BOX = 1 BOX

1 BOX = 1 OUTER BOX