

深圳市华普微电子有限公司
SHEN ZHEN HOPE MICROELECTRONICS CO.,LTD

Datasheet

Model NO.: HC-49S-26.000-15-1020

Product code: 40602600118

Quartz Crystal

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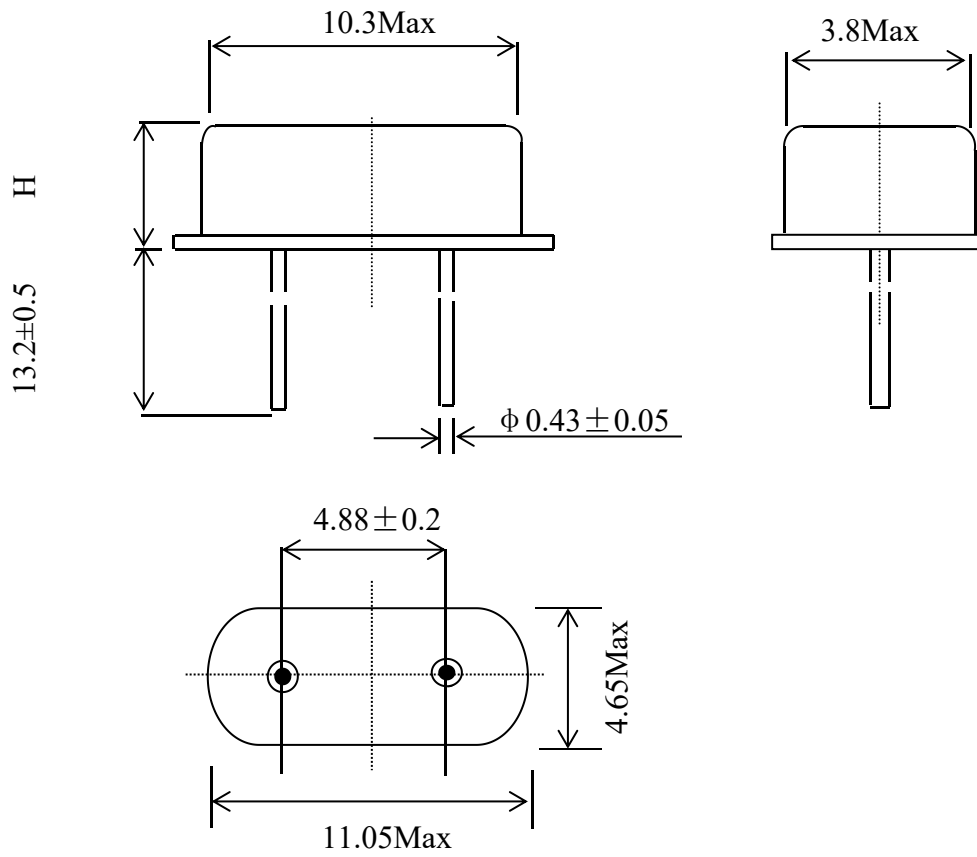
1. ELECTRICAL PARAMETERS

| No. | Characteristic | Limits | Remark |
|------|--------------------------------------|------------------------------------------------|------------------------------------------------------|
| 1.1 | Nominal Frequency | 26.000MHz | |
| 1.2 | Mode of vibration | fund | |
| 1.3 | Load capacitance | 15pF; | |
| 1.4 | Frequency Tolerance | $\pm 10\text{ppm}$ | Measure at $25^{\circ}\text{C}\pm 3^{\circ}\text{C}$ |
| 1.5 | Equivalent Series Resistance | 25 Ω max | |
| 1.6 | Operating Temperature Range | $-40^{\circ}\text{C}\sim +85^{\circ}\text{C}$ | |
| 1.7 | Frequency Stability | $\pm 20\text{ppm}$ | Over Operating Temperatuer Range |
| 1.8 | Storage Temperature Range | $-55^{\circ}\text{C}\sim +125^{\circ}\text{C}$ | |
| 1.9 | Drive Level | 100 μW max | |
| 1.10 | Insulation Resistance | 500M Ω | At 100V DC |
| 1.11 | Shunt Capacitance | 7.0pF max | |
| 1.12 | Motional Capacitance | | |
| 1.13 | Aging Per Year | $\pm 2\text{ppm}$ | First Yeat |
| 1.14 | Resistance Variation vs. Drive Level | | |
| 1.15 | Frequency Variation vs. Drive Level | | |

2. RELIABILITY SPECIFICATIONS

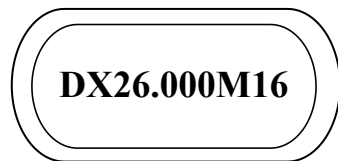
| No. | Test Item | Test Conditions | Reference |
|------|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| 2.1 | High Temperature Storage | Temperature: 125°C±10°C Time: 1000±24Hours | MIL-STD-883E |
| 2.2 | Temperature Cycle | Temperature 1: -55°C±10°C Temperature 2: 125°C±10°C Temperature change between T1 and T2 at soonest Run 10 cycles,maintain T1 and T2 30minutes each in one cycle | MIL-STD-883E |
| 2.3 | Solder Heat Resistance | Pre-heat: 125°C 60~120 Seconds Solder Temperature: 260°C±10°C Time: 5 Seconds | MIL-STD-202F |
| 2.4 | Drop Test | 3 Times Free Fall from 75cm height table to 3cm thickness hard wood board | MIL-STD-202F |
| 2.5 | High Temperature High Humidity Storage | Temperature: 85°C Relative Humidity: 85% Time: 1000Hours | MIL-STD-883E |
| 2.6 | Steam Aging | Temperature: 97°C Time: 8Hours 230°C solder pot to check solderability | MIL-STD-883E |
| 2.7 | Solderability | Dip in flux 5~10 seconds Temperature: 280°C±10°C Time: 5 Seconds | MIL-STD-883E |
| 2.8 | Aging | Temperature: 85°C Time: 300Hours | MIL-STD-883E |
| 2.9 | Thermal Shock | Temperature1: -55°C±10°C Temperature2: 125°C±10°C Temperature change between T1 and T2: 5 seconds 10 cycles,maintain T1 and T2 for 30 minutes each in one cycle | MIL-STD-202F |
| 2.10 | Vibration | Frequency Range: 10HZ~1000HZ Amplitude: 1.5mm 40mins in each direction,total 120mins | MIL-STD-883E |

3. OUTLINE DIMENSIONS (unit:mm)

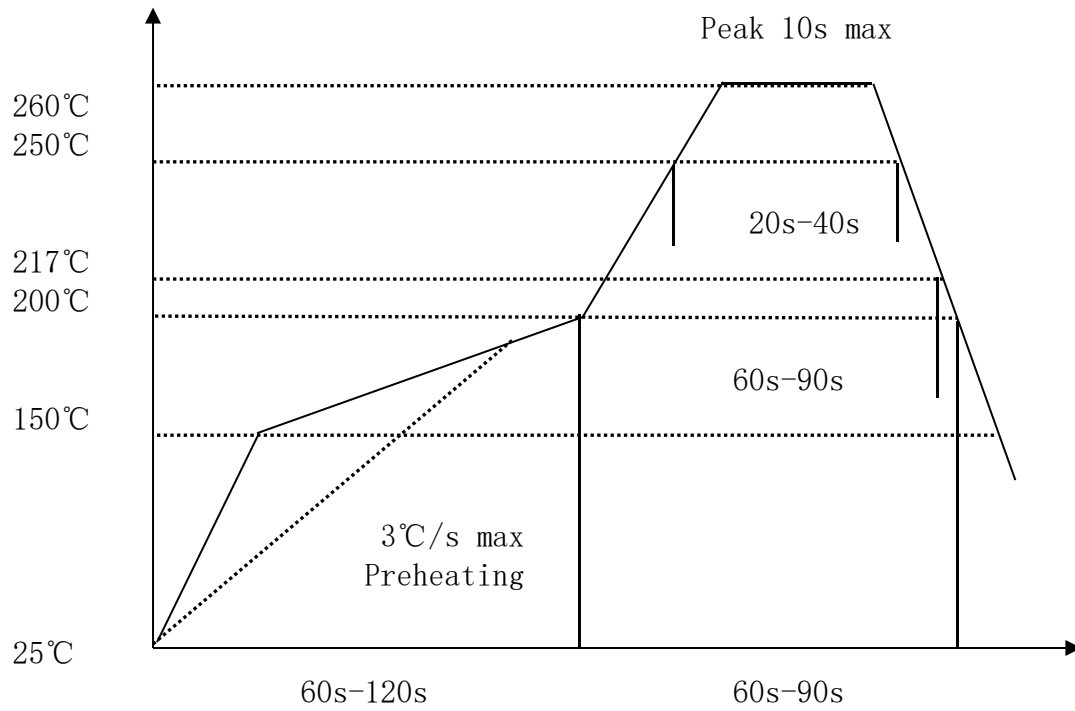


| HOLDER | H(Max) |
|------------|--------|
| HC-49/S1 | 2 |
| HC-49/S2 | 2.5 |
| ● HC-49/S3 | 3.5 |

4. MARKING

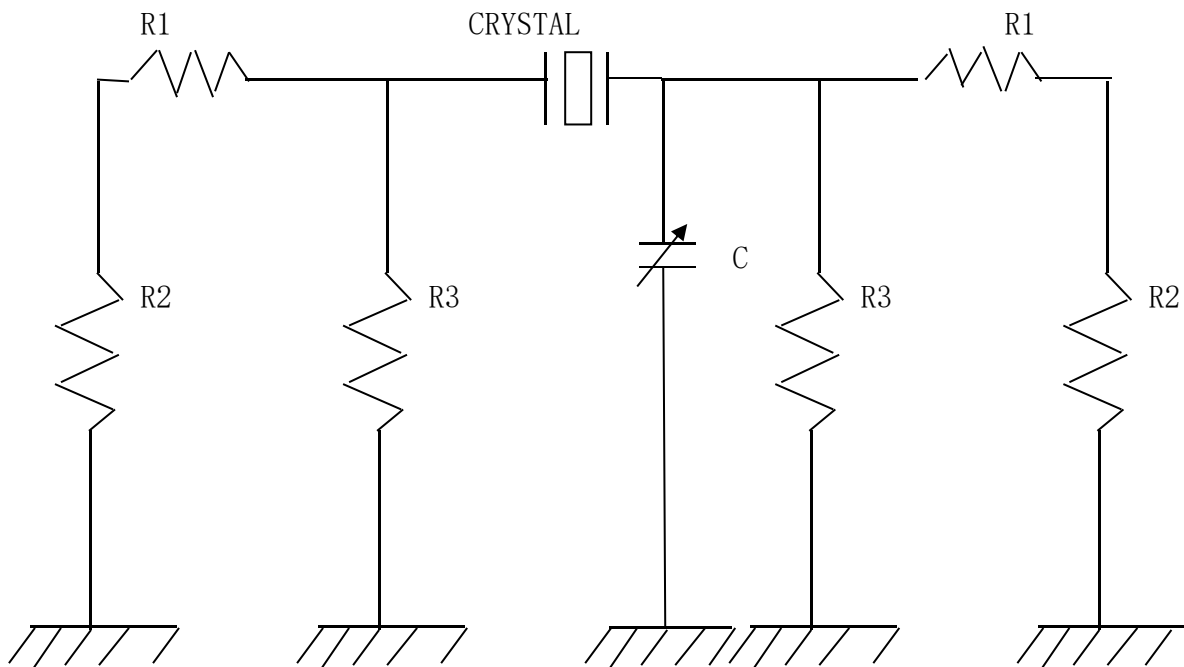


5. REFLOW PROFILE (49US-SMD/49USS-SMD)



6. CRYSTAL TEST CIRCUIT

TEST SET: KH1120:



R1: PI_{top} resistor=66.2 Ω
 R2: PI_{outer} resistor=159 Ω
 R3: PI_{inner} resistor=14.2 Ω