

# Data Sheet

Customer : \_\_\_\_\_

Product : Radial Type & SMD Type Crystal Resonators / MHz Band Crystal Resonators  
HQCXHC Series

Size : HC49US / HC49SM / HC49USS / HC49SSM

Issued Date : 01-Oct.-2025

Edition : Ver.1

## Record of change

| Date | Ver. | Description | Page |
|------|------|-------------|------|
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## HITANO ENTERPRISE CORP.

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| Prepared by     | Checked by          | Approved by      | Accepted by (customer) |
|-----------------|---------------------|------------------|------------------------|
| 01-Oct.-2025    | 01-Oct.-2025        | 01-Oct.-2025     |                        |
| <b>Randy Yu</b> | <b>Michelle Lin</b> | <b>Arthur Su</b> |                        |



**HC-49US**  
Series

- Resistance welded type crystal units
- A great number of standard frequencies
- High frequency pullability and low equivalent series resistance
- Lower cost and high mass production capacity
- The best choice for PC, STB, LCDM, Keyboard, Mouse

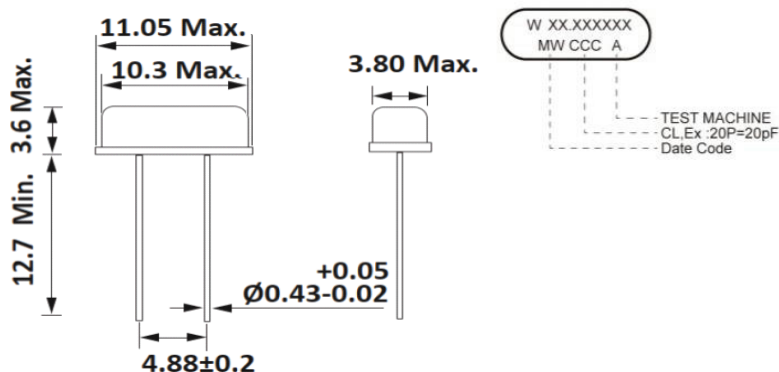
### Electrical Specifications

|                                                      |                                            |
|------------------------------------------------------|--------------------------------------------|
| Model                                                | HC-49US                                    |
| Frequency Range                                      | 3.2 ~ 90MHz                                |
| Frequency Tolerance (at 25°C)                        | ±30ppm, or specify                         |
| Frequency Stability Over Operating Temperature Range | ±30ppm, or specify                         |
| Operating Temperature Range                          | -20°C ~ +70°C, or specify                  |
| Shunt Capacitance (C0)                               | 7pF Max.                                   |
| Drive Level                                          | 1 ~ 500uW ( 100uW Typ. )                   |
| Load Capacitance                                     | Series, 16pF, 20pF, 30pF, 32pF, or specify |
| Aging (at 25°C)                                      | ±3ppm / year Max.                          |
| Storage Temperature Range                            | -55°C ~ +125°C                             |

### Equivalent Series Resistance (ESR)

| Fundamental    |           | 3rd Overtone |           |
|----------------|-----------|--------------|-----------|
| 3.2 ~ 3.686MHz | 200Ω Max. | 27 ~ 30MHz   | 100Ω Max. |
| 3.686 ~ 5MHz   | 150Ω Max. | 30 ~ 50MHz   | 80Ω Max.  |
| 5 ~ 10MHz      | 80Ω Max.  | 50 ~ 90MHz   | 60Ω Max.  |
| 10 ~ 14MHz     | 40Ω Max.  |              |           |
| 14 ~ 30MHz     | 30Ω Max.  |              |           |

Dimensions : Unit mm



Month

|     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | A   | B   | C   |

Week

|     |     |     |     |     |
|-----|-----|-----|-----|-----|
| 1st | 2nd | 3rd | 4th | 5th |
| A   | B   | C   | D   | 5   |

TEST Machine

|    |    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 |
| A  | B  | C  | D  | E  | F  | G  | H  | I  | J  | K  | L  | M  |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| N  | O  | P  | Q  | R  | S  | T  | U  | V  | W  | X  | Y  | Z  |

- Surface mount type crystal units
- A great number of standard frequencies
- High frequency pullability and low equivalent series resistance
- Lower cost and high mass production capacity
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**HC-49US SMD Series**

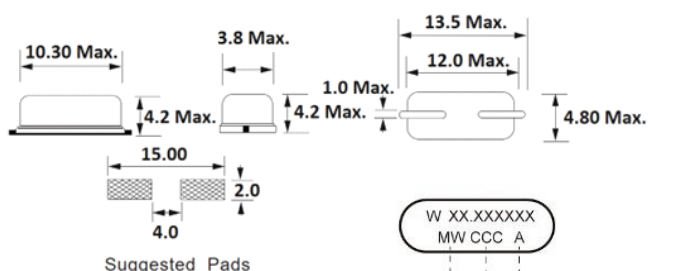
### Electrical Specifications

|                                                      |                                            |
|------------------------------------------------------|--------------------------------------------|
| Model                                                | HC-49US SMD                                |
| Frequency Range                                      | 3.2 ~ 90MHz                                |
| Frequency Tolerance (at 25°C)                        | ±30ppm, or specify                         |
| Frequency Stability Over Operating Temperature Range | ±30ppm, or specify                         |
| Operating Temperature Range                          | -20°C ~ +70°C, or specify                  |
| Shunt Capacitance (C0)                               | 7pF Max.                                   |
| Drive Level                                          | 1 ~ 500uW ( 100uW Typ. )                   |
| Load Capacitance                                     | Series, 16pF, 20pF, 30pF, 32pF, or specify |
| Aging (at 25°C)                                      | ±3ppm / year Max.                          |
| Storage Temperature Range                            | -55°C ~ +125°C                             |

### Equivalent Series Resistance (ESR)

| Fundamental    |           | 3rd Overtone |           |
|----------------|-----------|--------------|-----------|
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| 3.686 ~ 5MHz   | 150Ω Max. | 30 ~ 50MHz   | 80Ω Max.  |
| 5 ~ 10MHz      | 80Ω Max.  | 50 ~ 90MHz   | 60Ω Max.  |
| 10 ~ 14MHz     | 40Ω Max.  |              |           |
| 14 ~ 30MHz     | 30Ω Max.  |              |           |

Dimensions : Unit mm



Month

|     |     |     |     |     |     |     |     |     |     |     |     |
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TEST Machine

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**HC-49USS**  
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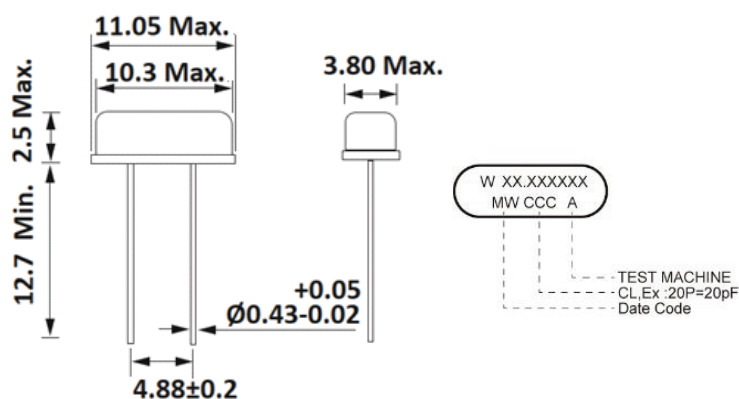
### Electrical Specifications

|                                                      |                                            |
|------------------------------------------------------|--------------------------------------------|
| Model                                                | HC-49USS                                   |
| Frequency Range                                      | 3.2 ~ 90MHz                                |
| Frequency Tolerance (at 25°C)                        | ±30ppm, or specify                         |
| Frequency Stability Over Operating Temperature Range | ±30ppm, or specify                         |
| Operating Temperature Range                          | -20°C ~ +70 °C, or specify                 |
| Shunt Capacitance (C0)                               | 7pF Max.                                   |
| Drive Level                                          | 1 ~ 500uW ( 100uW Typ. )                   |
| Load Capacitance                                     | Series, 16pF, 20pF, 30pF, 32pF, or specify |
| Aging (at 25°C)                                      | ±3ppm / year Max.                          |
| Storage Temperature Range                            | -55°C ~ +125°C                             |

### Equivalent Series Resistance (ESR)

| Fundamental    |           | 3rd Overtone |           |
|----------------|-----------|--------------|-----------|
| 3.2 ~ 3.686MHz | 200Ω Max. | 27 ~ 30MHz   | 100Ω Max. |
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| 10 ~ 14MHz     | 40Ω Max.  |              |           |
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Dimensions : Unit mm



Month

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**HC-49USS SMD**  
Series

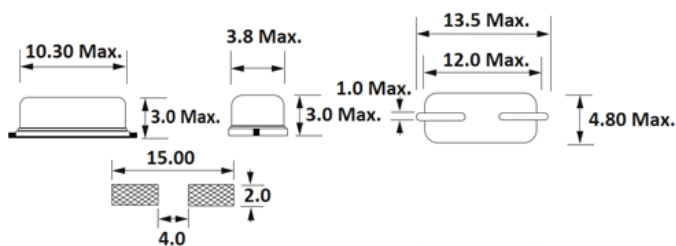
### Electrical Specifications

|                                                      |                                            |
|------------------------------------------------------|--------------------------------------------|
| Model                                                | HC-49USS SMD                               |
| Frequency Range                                      | 3.2 ~ 90MHz                                |
| Frequency Tolerance (at 25°C)                        | ±30ppm, or specify                         |
| Frequency Stability Over Operating Temperature Range | ±30ppm, or specify                         |
| Operating Temperature Range                          | -20°C ~ +70°C, or specify                  |
| Shunt Capacitance (C0)                               | 7pF Max.                                   |
| Drive Level                                          | 1 ~ 500uW ( 100uW Typ. )                   |
| Load Capacitance                                     | Series, 16pF, 20pF, 30pF, 32pF, or specify |
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Dimensions : Unit mm



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