

CRYSTAL SPECIFICATION



CUSTOMER PART NO. : 9SM1105920AFHHF0
PRODUCT CODE : 9SM1105920AFHHF0
PRODUCT DESCRIPTION : HC49US CRYSTAL THRU HOLE TYPE

Customer Approval :

Hong Kong X'tals Limited



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Date : 02/07/2024

Approved by :

A handwritten signature in black ink, appearing to be "Ronald Chan".

Mr. Ronald Chan / Product Engineer

CRYSTAL SPECIFICATION

Product Code : 9SM1105920AFHHF0

Description : Quartz Crystal

Revision History

| Rev. | Date | Reason | Issued By |
|------|------------|--------|-----------|
| 0 | 07/08/2012 | | Xiao Cui |

CRYSTAL SPECIFICATION

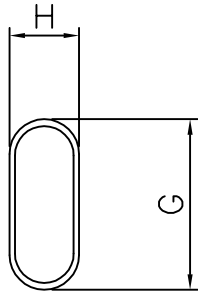
Customer Part No. : 9SM1105920AFHHF0
Product Code : 9SM1105920AFHHF0
Description : Quartz Crystal
Nominal Frequency : 11.0592 MHz
Oscillation Mode : Fundamental
Holder Type : 9S

Measure equipment

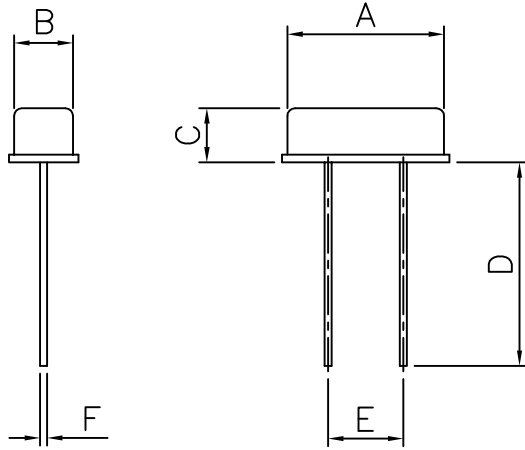
Electrical characteristics measured by Kolinker KH1240 or HP5100 equivalent.

Electrical Characteristics :

| | |
|------------------------------|---------------------------|
| Load Capacitance | 20 pF |
| Frequency Tolerance At 25 °C | ± 30 ppm |
| Frequency Stability | ± 50 ppm |
| Temperature Range | -20 ~ 70 °C |
| Operable Temperature Range | -40 ~ 85 °C |
| Ageing | < ± 5 ppm first year |
| Drive Level | 50 µW typ. (300 µW Max.) |
| Equivalent Series Resistance | 40 ohms Max. |
| Shunt Capacitance | 7 pF Max. |
| Insulation Resistance | 500M ohm Min at 100 VDC |
| Marking | 11.0592+TRACEABILITY CODE |
| SPQ / Pack Type | 2000 / PACK |



TOP VIEW



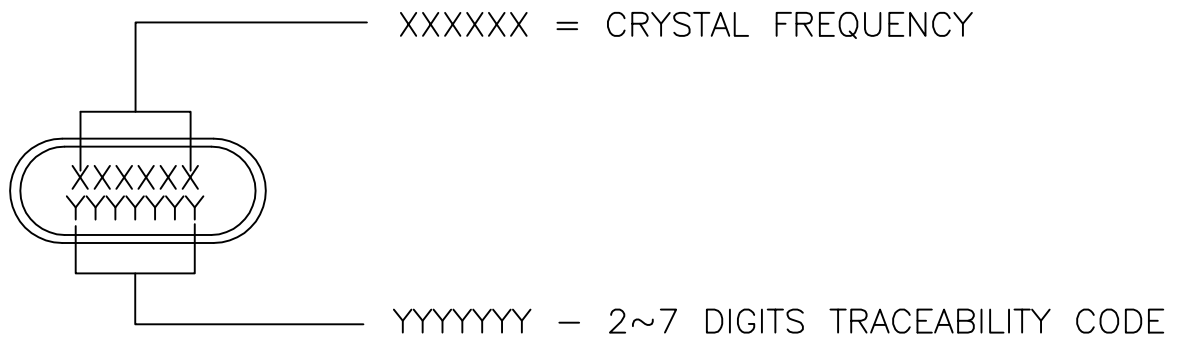
FRONT VIEW

SIDE VIEW

| ITEM | DIMENSION | |
|------|---|--------------|
| A | 10.16 Max. | |
| B | 3.81 Max. | |
| C | TYPE | HEIGHT |
| | 92 | 2.25/2.35mm* |
| | 93 | 2.50mm Max. |
| | 9S | 3.50mm Max. |
| | 94 | 4.00mm Max. |
| D | 1.LEAD LENGTH 13.2±0.5(STANDARD) | |
| | 2.LEAD LENGTH (2.8~16)±0.5 REFER TO CUSTOMER REQUEST | |
| E | 4.88 ±0.2 | |
| F | 0.45 ±0.05 | |
| G | 11.05 Max. | |
| H | 4.7 Max. | |

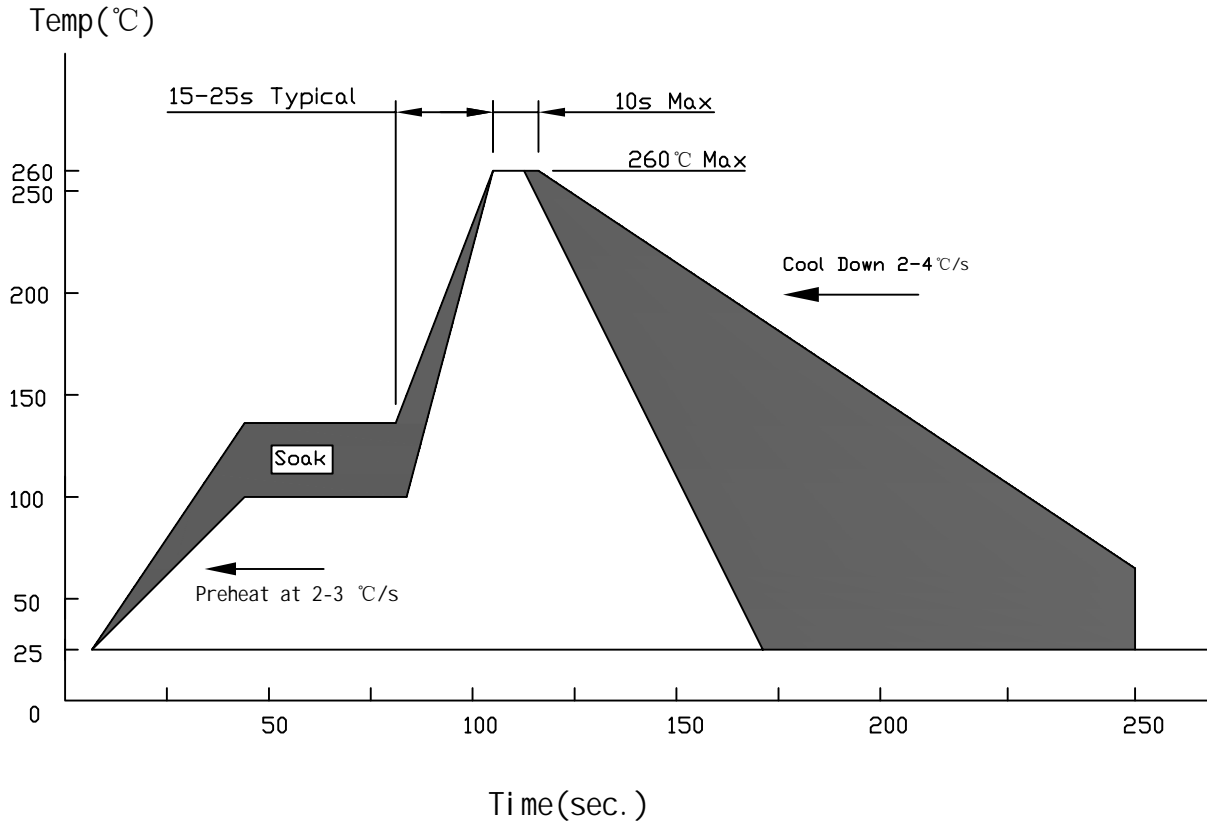
* >5MHz = 2.25mm MAX
 <5MHz = 2.35mm MAX

MARKING INFORMATION



| 49S DETAILS & MARKING INFORMATION | | | | | | | CREATIVE |
|---|------|---------------------|-------|------|----------------------------|------------|-------------|
| ITEM | QTY. | DESCRIPTION | MAT'L | HDN. | SURFACE | MAT'L SIZE | REMARK |
| GENERAL TOLERANCE: .X=±0.5 .XX=±0.1 .XXX=±0.05 | | DATE | NAME | | TITLE : HC-49US CRYSTAL | | |
| PROPRIETARY NOTICE : THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTIES OF HKC. | | DRAWN 2016-2-19 | TAN | | PART No.: 92 93 9S 94 95 | | |
| | | CHECK 2016-2-19 | PANG | | DRAWING No.: 12033780 | | |
| DO NOT SCALE DRAWING | | APROV. 2016-2-19 | | | | SCALE: NA | SHT. 1 OF 1 |
| ALL DIMENSIONS IN mm UNLESS OTHERWISE STATED | | | | | | | REV. 05 |

Wave Soldering Profile



Note:

- 1. Only the lead wire region is exposed to high temperature**
- 2. Ramp down rate : 4°C/ Sec. Max**
- 3. Effective products:**
 - Thru-hole AT cut 49US crystals, oscillators
 - Thru-hole ceramic resonators.

| ITEM | QTY. | DESCRIPTION | MAT'L | HDN. | SURFACE | MAT'L SIZE | REMARK |
|---|-------------|-----------------------|-----------|--|--|------------|-----------|
| GENERAL TOLERANCE: | | DATE | NAME | | TITLE: Thru-hole Packages(AT/CR) typical wave soldering profile | | |
| X=±0.5 | X°=±0.5° | DRAWN | TAN | | | | |
| X=±0.1 | X°=±0.1° | CHECK | PANG | | | | |
| .XX=±0.05 | .XX°=±0.05° | APROV. | 2015-3-10 | | | | |
| PROPRIETARY NOTICE : THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF HKC. | | | | | PART No.: Refer to DWG Description | | |
| | | HONG KONG X'TALS LTD. | | | DRAWING No.: 13000003 | | |
| | | DO NOT SCALE DRAWING | | ALL DIMENSIONS IN mm UNLESS OTHERWISE STATED | | | SCALE: NA |