
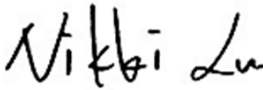



# PSE Technology Corporation

## SPECIFICATION FOR APPROVAL

|                   |                                   |
|-------------------|-----------------------------------|
| CUSTOMER          | _____                             |
| NOMINAL FREQUENCY | 11.059200 MHz                     |
| HOLDER TYPE       | <b>TYPE GB 49S QUARTZ CRYSTAL</b> |
| SPEC. NO. ( P/N ) | GB1100021                         |
| CUSTOMER P/N      | _____                             |
| ISSUE DATE        | June 13, 2016                     |
| VERSION           | B                                 |

| APPROVED  | PREPARED  | QA  |
|---|---|---|
|  |  |  |
| APPROVED BY CUSTOMER :  |   | AVL Status  |
| Please return one copy with approval to PSE-TW                                      |   |   |

### PSE Technology Corporation

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 TEL: 886-3-451-8888  
 FAX: 886-3-461-3865  
<http://www.saronix-ecera.com.tw>

\*RoHS Compliant  
 \*HF-Halogen Free  
 \*REACH Compliant

\*\*\* A company of  **PERICOM Semiconductor Corporation** \*\*\*

# TYPE GB 49S QUARTZ CRYSTAL

## GB1100021

VER. B 13-Jun-16

### VERSION HISTORY

| Version No. | Version Date | Customer Receipt Date | Supplier Receipt Date | Description   | Notes |
|-------------|--------------|-----------------------|-----------------------|---|-------|
| A           | Jun.17,2009  |                       |                       | Initial Release                                       |       |
| B           | Dec.30,2014  |                       |                       | Updated Suggested IR Reflow Profile, packing & format |       |
|             |              |                       |                       |   |       |
|             |              |                       |                       |   |       |
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# TYPE GB 49S QUARTZ CRYSTAL

## GB1100021

VER. B 13-Jun-16

### ELECTRICAL SPECIFICATIONS

| Item   | Symbol | Specifications     | Units | Notes                              |
|--|--------|--------------------|-------|------------------------------------|
| Nominal Frequency  | Fn     | 11.059200          | MHz   |                                    |
| Mode of Oscillation  | MO     | AT Cut-Fundamental |       |                                    |
| Calibration Load Capacitance   | CL     | 30                 | pF    |                                    |
| Calibration Tolerance  | FL     | ±30                | ppm   | at 25°C±3°C                        |
| Operating Temperature Range  | TR     | -20 to +70         | °C    |                                    |
| Frequency Stability<br>(Frequency Deviation over the<br>Operating Temperature Range) | F/T    | ±30                | ppm   | Reference to the Frequency at 25°C |
| Operating Drive Level  |        | 100                | μW    |                                    |
| Maximum Drive Level  |        | 500                | μW    |                                    |
| Equivalent Series Resistance   | ESR    | 30                 | Ω     | Max                                |
| Shunt Capacitance  | C0     | 7                  | pF    | Max                                |
| Aging at 25°C  |        | ±5                 | ppm   | Max, 1st year                      |
| Storage Temperature  |        | -55 to +125        | °C    |                                    |
| Insulation Resistance  |        | 500                | MΩ    | Min                                |

# TYPE GB 49S QUARTZ CRYSTAL

GB1100021

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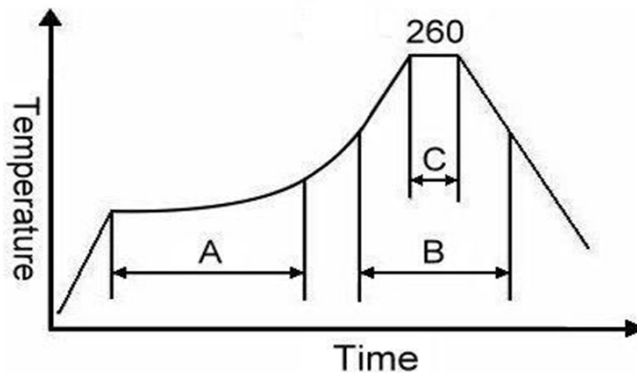
## RELIABILITY SPECIFICATIONS

### MECHANICAL AND ENVIRONMENTAL RATINGS:

- a) FINE LEAK TEST: JESD22-A109 (Condition 1A)
- b) GROSS LEAK TEST: JESD22-A109 (Condition C)
- c) MOISTURE RESISTANCE: JESD22-A113
- d) SHOCK: JESD22-B104 (Condition B)
- e) SOLDERABILITY : (RoHS version): J-STD-002
- f) VIBRATION: JESD22-B103
- g) SOLVENT RESISTANCE: JESD22-B107
- h) RESISTANCE TO SOLDERING HEAT (RoHS version): J-STD-020D Table 5.2 Pb free devices (3 cycles max)

## SUGGESTED IR REFLOW PROFILE

\*As per IPC-JEDEC J-STD-020D



Note:

|   | Stage        | Temperature | Time       |
|---|--------------|-------------|------------|
| A | Preheat      | 150~200°C   | 60~120 Sec |
| B | Primary Heat | 217°C       | 60~150 Sec |
| C | Peak         | 260°C       | 10 Sec     |

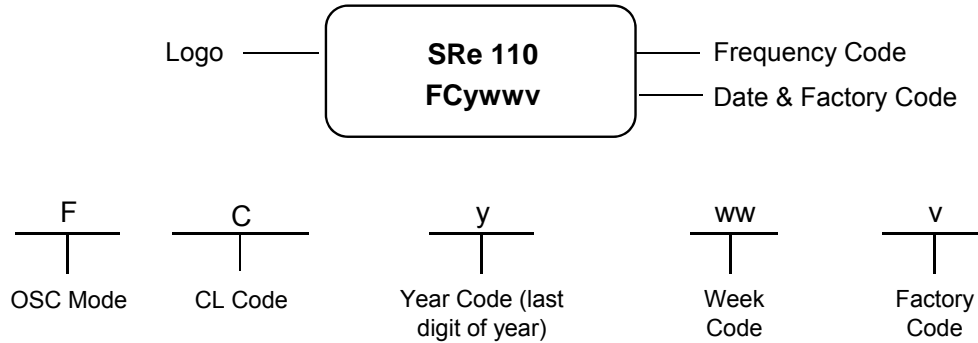
For soldering reflow profile and reliability test ratings go to: <http://www.pericom.com/pdf/sre/reflow.pdf>

# TYPE GB 49S QUARTZ CRYSTAL

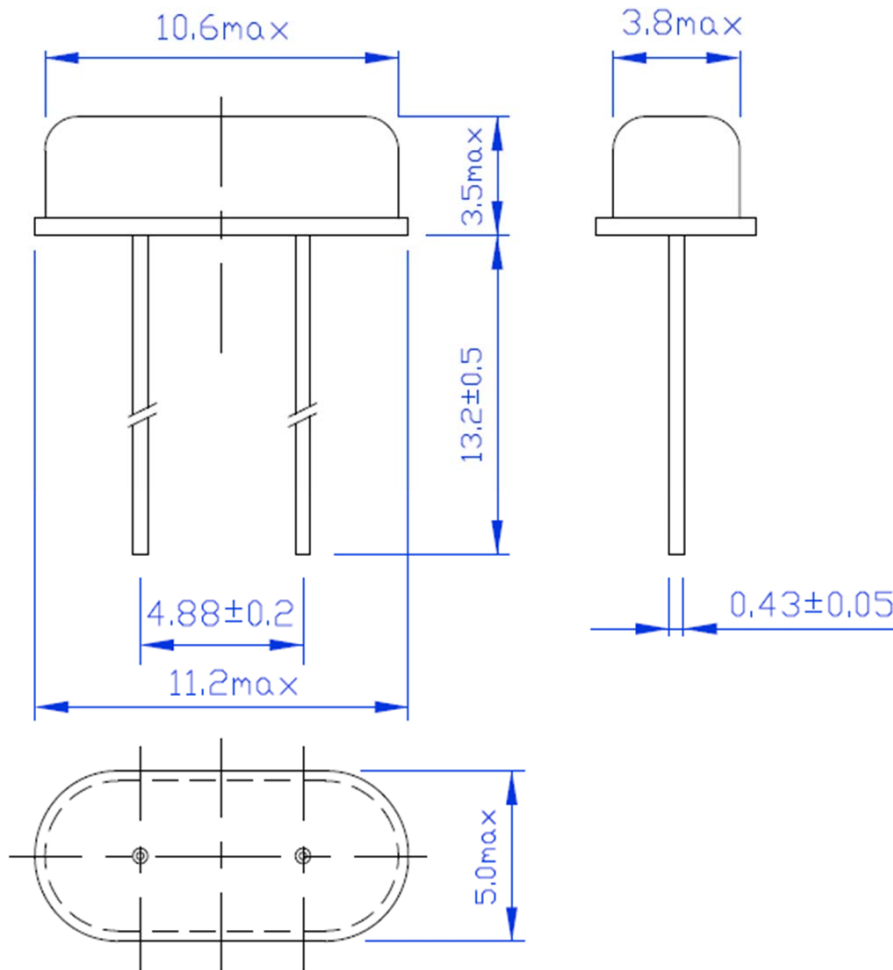
## GB110021

VER. B 13-Jun-16

### MARKING



### MECHANICAL DRAWINGS ( Scale: None. Dimensions are in mm.)

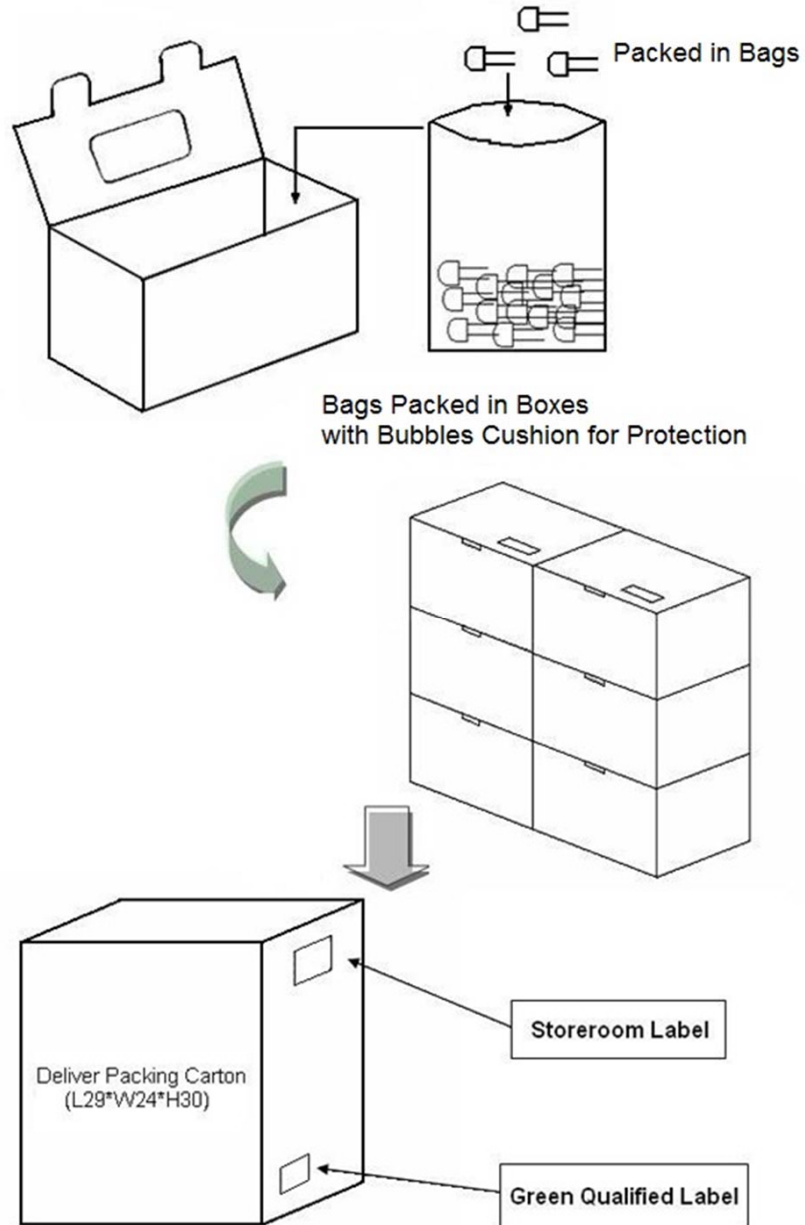


# TYPE GB 49S QUARTZ CRYSTAL

GB1100021

VER. B 13-Jun-16

## PACKING



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[FL2000085](#) [9B-15.360MBBK-B](#) [9C-7.680MBBK-T](#) [ASH7K-32.768KHZ](#) [AT-41.600MAGQ-T](#) [BTD1062E05A-513](#) [LFXTAL066198Cutt](#)  
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