



**THE DATASHEET OF  
FW2500025Z**



# PSE Technology Corporation

## SPECIFICATION FOR APPROVAL

|                   |  |
|-------------------|--|
| CUSTOMER          | _____                                      |
| NOMINAL FREQUENCY | <b>25.000000 MHz</b>                       |
| PRODUCT TYPE      | <b>TYPE FW 2.0x1.6 SEAM SEALED CRYSTAL</b> |
| PART NUMBER       | <b>FW2500025Z</b>                          |
| CUSTOMER P/N      | _____                                      |
| ISSUE DATE        | <b>June 6, 2014</b>                        |
| VERSION           | <b>C</b>                                   |

| APPROVED                                       | PREPARED        | QA            |
|--|-----------------|---------------|
| <i>Brenda</i>                                  | <i>Nikki Lu</i> | <i>Bedoya</i> |
| APPROVED BY CUSTOMER                           |                 |               |
| Please return one copy with approval to PSE-TW |                 |               |

### PSE Technology Corporation

No.2, Tzu-Chiang 5th Rd., Chung Li Industrial Park,  
 Chung Li City, Taoyuan County, Taiwan (R.O.C.)  
 TEL:886-3-451-8888  
 FAX:886-3-461-3865  
<http://www.saronix-ecera.com.tw/>

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

**A Company of PERICOM Semiconductor Corporation**

# TYPE FW 2.0x1.6 SEAM SEALED CRYSTAL

**FW2500025Z**

VER.C 06-JUN-14

## VERSION HISTORY

| Version No. | Version Date  | Customer Receipt Date | Supplier Receipt Date | Description   | Notes |
|-------------|---------------|-----------------------|-----------------------|---|-------|
| A           | May. 28, 2014 |                       |                       | Initial Release   |       |
| B           | May. 29, 2014 |                       |                       | Updated Calibration Load Capacitance to 20pF, ESR to 50 ohms max, C0 to 5pF max & Operating drive level to 10uW |       |
| C           | Jun. 6, 2014  |                       |                       | Added Motional Capacitance 1.73fF & Motional Inductance 23.40mH   |       |

# TYPE FW 2.0x1.6 SEAM SEALED CRYSTAL

## FW2500025Z

VER.C 06-JUN-14

### ELECTRICAL SPECIFICATIONS

| Item  | Symbol | Specifications     | Units | Notes                              |
|---|--------|--------------------|-------|------------------------------------|
| Nominal Frequency   | Fn     | 25.000000          | MHz   |                                    |
| Mode of Oscillation   | MO     | AT Cut-Fundamental |       |                                    |
| Calibration Load Capacitance  | CL     | 20                 | pF    |                                    |
| Calibration Tolerance   | FL     | ± 30               | ppm   | at 25°C±3°C                        |
| Operating Temperature Range   | TR     | -20 to +80         | °C    |                                    |
| Frequency Stability(Frequency Deviation over the Operating Temperature Range) | F/T    | ± 30               | ppm   | Reference to the Frequency at 25°C |
| Operating Drive Level   |        | 10                 | μW    |                                    |
| Maximum Drive Level   |        | 200                | μW    |                                    |
| Equivalent Series Resistance  | ESR    | 50                 | Ω     | Max.                               |
| Shunt Capacitance   | C0     | 5                  | pF    | Max.                               |
| Motional Capacitance  | C1     | 1.73               | fF    | Typ.                               |
| Motional Inductance   | L1     | 23.40              | mH    | Typ.                               |
| Aging at 25°C   |        | ± 3                | ppm   | Max, 1st year                      |
| Storage Temperature   |        | -55 to +125        | °C    |                                    |
| Insulation Resistance   |        | 500                | MΩ    | Min                                |

\*\* This product doesn't include harmful substance that stipulated by SONY SS-00259 Level 1 and S-AT2-001 Level 1 standard. RoHS Compliant (Pb - Free).

# TYPE FW 2.0x1.6 SEAM SEALED CRYSTAL

**FW2500025Z**

VER.C 06-JUN-14

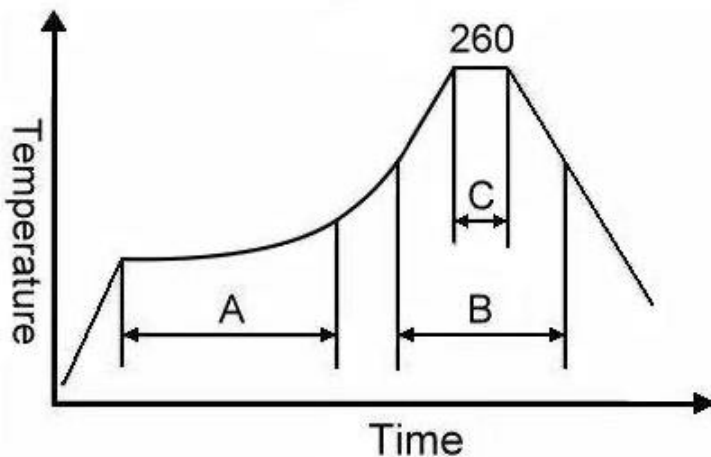
## RELIABILITY SPECIFICATIONS

### 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     |

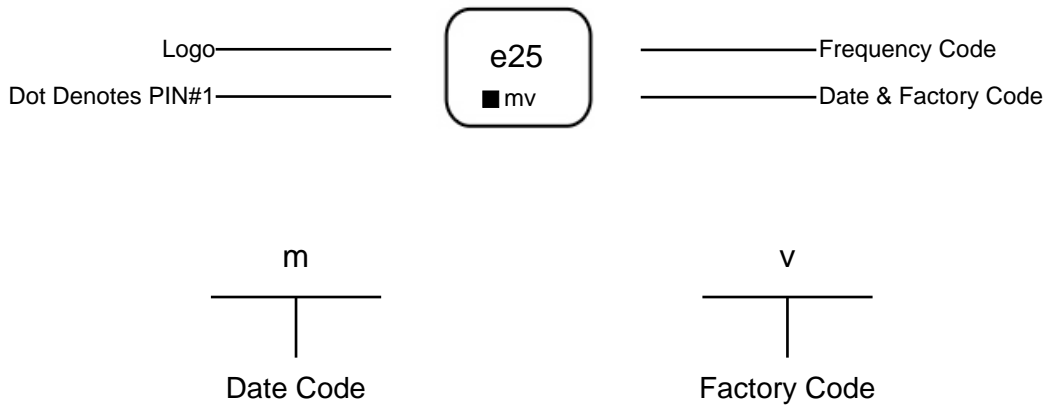
For soldering reflow profile and reliability test ratings go to: <http://www.pericom.com/pdf/sre/reflow.pdf>

# TYPE FW 2.0x1.6 SEAM SEALED CRYSTAL

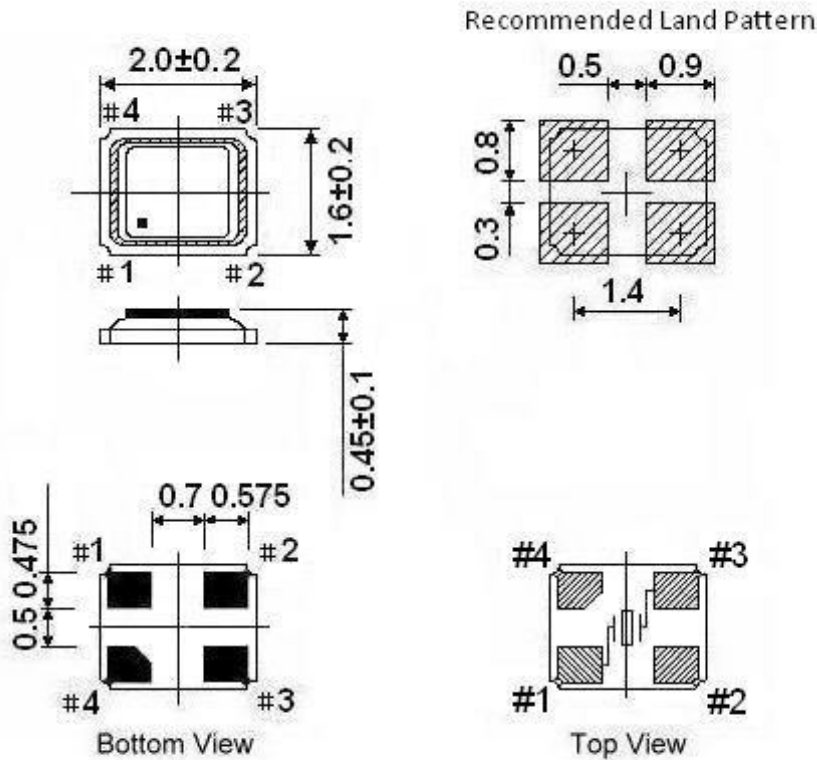
**FW2500025Z**

VER.C 06-JUN-14

## MARKING



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



\*\* Recommended - Pin 1 & 3: CRYSTAL  
Pin 2 & 4: GND

### Notes:

1. Package drawings are for reference only, and the appearances of objects may vary. Actual packages are based on the real product.
2. The marking dot denotes Pin#1.
3. The position and shape of the chamfer pin may vary and are based on the real product.

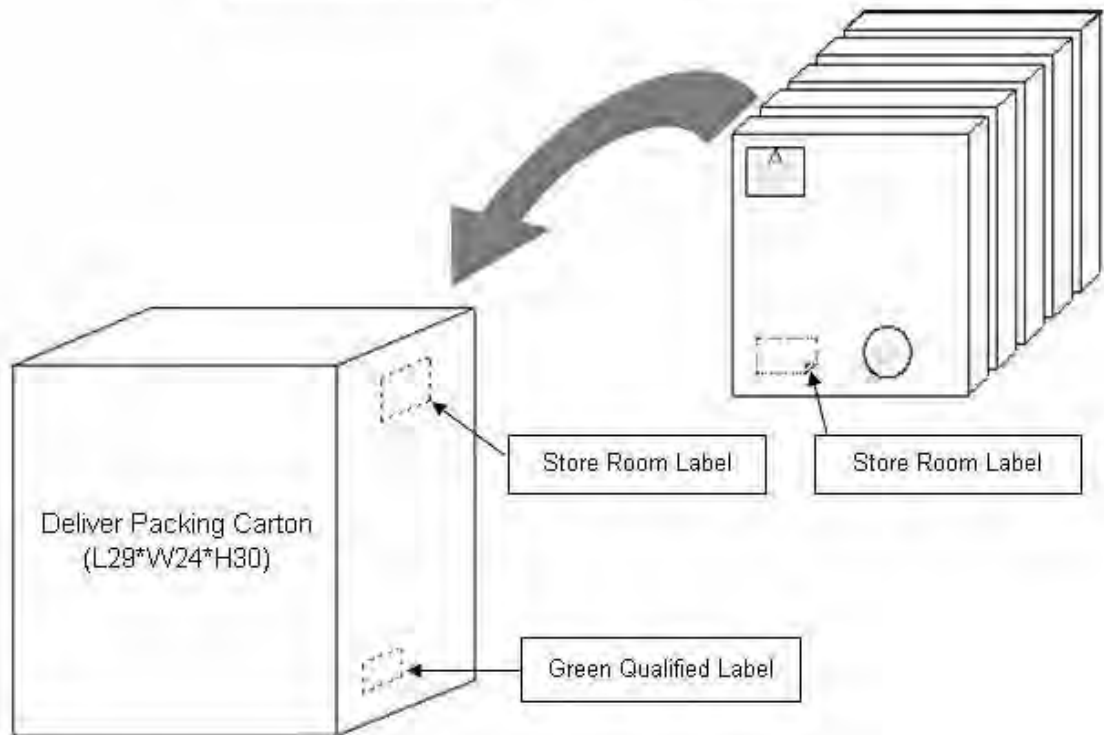
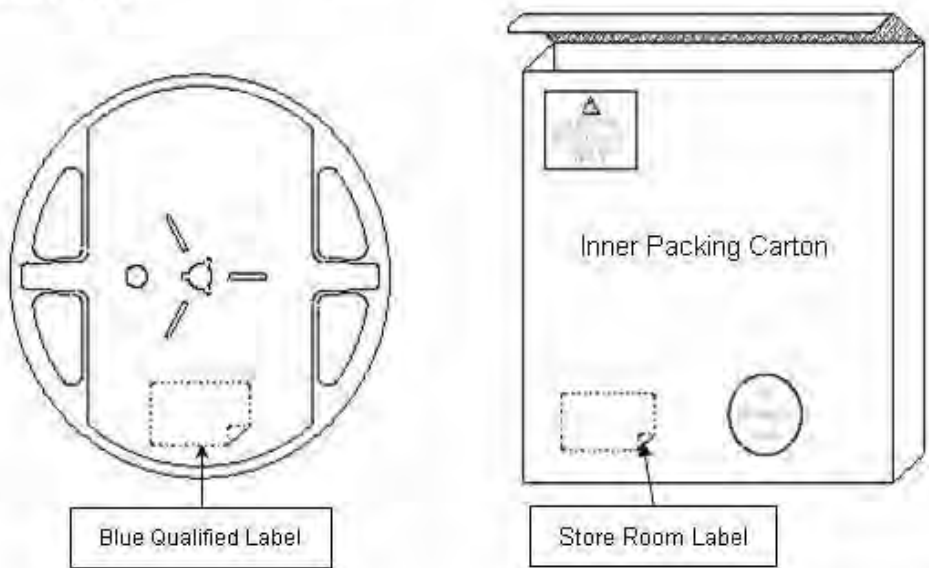
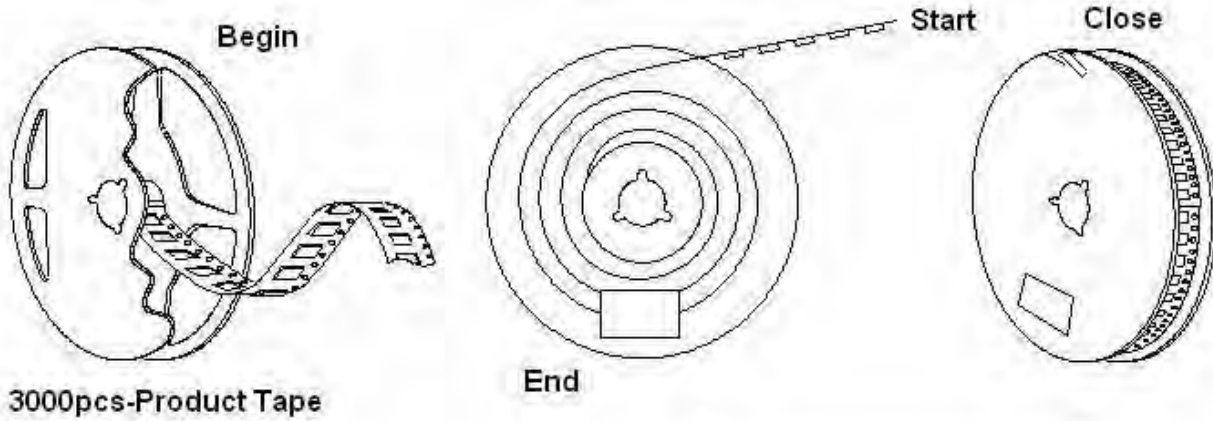


# TYPE FW 2.0x1.6 SEAM SEALED CRYSTAL

**FW2500025Z**

VER.C 06-JUN-14

## PACKING



## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- ⊖ [View FW2500025Z on WIN SOURCE](#)
- ⊖ [Diodes Incorporated](#) Information

## Optimize Your Supply Chain with WIN SOURCE Solutions

- ✓ Global Sourcing Solution
- ✓ Obsolete Management
- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management