# PERICOM<sup>®</sup> SaRonix-eCera<sup>®</sup>

# **PSE Technology Corporation**

# SPECIFICATION FOR APPROVAL

| CUSTOMER          |                                      |
|-------------------|--------------------------------------|
| NOMINAL FREQUENCY | 24.000000 MHz                        |
| PRODUCT TYPE      | TYPE F9 5.0x3.2 GLASS SEALED CRYSTAL |
| SPEC. NO. ( P/N ) | F92400054                            |
| CUSTOMER P/N      |                                      |
| ISSUE DATE        | August 23, 2013                      |
| VERSION           | C                                    |

| APPROVED                                       | PREPARED              | QA       |  |
|--|-----------------------|----------|--|
| Brenda   | Niklai Lu             | Bedryeri |  |
| APPROVED BY                                    | APPROVED BY CUSTOMER: |          |  |
| Please return one copy with approval to PSE-TW |                       |          |  |

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http://www.saronix-ecera.com.tw

\*RoHS Exemption

\*HF-Halogen Free

\*REACH Compliant

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

F92400054

VER. C 23-Aug-13

## **VERSION HISTORY**

| Verision<br>No. | Verision<br>Date | Customer Receipt<br>Date | Supplier Receipt<br>Date | Description   | Notes |
|-----------------|------------------|--------------------------|--------------------------|---|-------|
| Α               | Feb.25,2009      |                          |                          | Initial Release   |       |
| В               | Nov.12,2010      |                          |                          | Revised format & Changed Logo   |       |
| С               | Aug.23,2013      |                          |                          | Updated Suggested IR Reflow Profile & Format & Updated mechanical drawing |       |
|                 |                  |                          |                          |   |       |
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|                 |                  |                          |                          |   |       |



E0-R-4-014 Rev.E

# F92400054

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#### **ELECTRICAL SPECIFICATIONS**

| Item   | Symbol | Specifications     | Units | Notes                               |
|--|--------|--------------------|-------|-------------------------------------|
| Nominal Frequency  | Fn     | 24.000000          | MHz   |                                     |
| Mode of Oscillation  | MO     | AT Cut-Fundamental |       |                                     |
| Calibration Load Capacitance   | CL     | 18                 | 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  |        | 10                 | μW    |                                     |
| Maximum Drive Level  |        | 100                | μW    |                                     |
| Equivalent Series Resistance   | ESR    | 60                 | Ω     | Max                                 |
| Shunt Capacitance  | C0     | 5                  | pF    | Max.                                |
| Aging at 25°C  |        | ±5                 | ppm   | Max, 1st year                       |
| Storage Temperature  |        | -55 to +125        | °C    |                                     |
| Insulation Resistance  |        | 500                | МΩ    | Min                                 |



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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)

Temperature

150~200°C

217°C

260°C

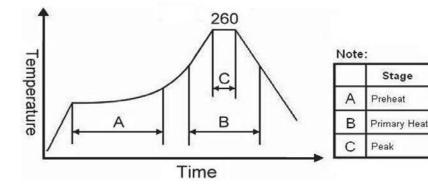
Time

60~120 Sec 60~150 Sec

10 Sec

#### SUGGESTED IR REFLOW PROFILE

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



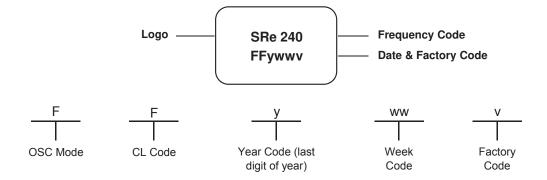
For soldering reflow profile and reliability test ratings go to: http://www.pericom.com/pdf/sre/reflow.pdf



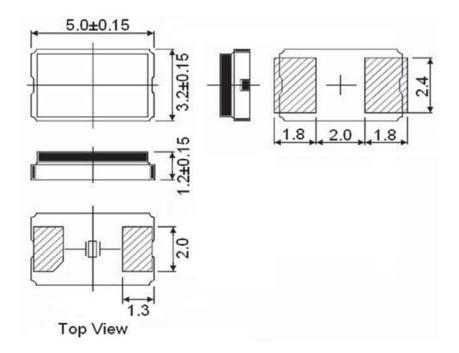
## F92400054

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#### **MARKING**



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

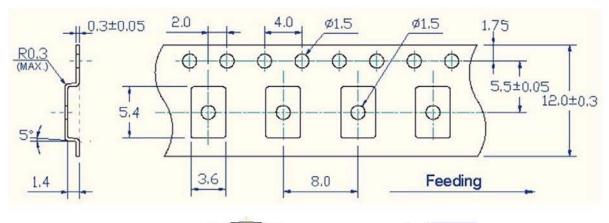


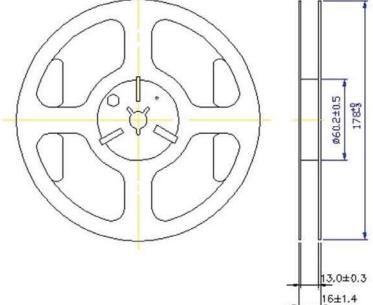
Note:

Pin shape is only for reference, and the Pin with chamfer or without chamfer is based on the real product.



#### Tape & Reel





- 1. 230mm minimum leafer which consist of carrier and/or tape followed by a minimum of 160mm of empty carrier tape sealed with cover tape.
- 2. 160mm minimum trailer of empty carrier tape sealed with cover tape.

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# TYPE F9 5.0x3.2 GLASS SEALED CRYSTAL F92400054 VER. C 23-Aug-13 **PACKING** Start **Begin** End 1000pcs-Product Tape Inner Packing Carton Blue Qualified Label Storeroom Label Storeroom Label Storeroom Label Deliver Packing Carton (L29\*W24\*H30) Green Qualified Label

