



**THE DATASHEET OF  
US320005Z**



# PSE Technology Corporation

## SPECIFICATION FOR APPROVAL

CUSTOMER \_\_\_\_\_

NOMINAL FREQUENCY **32.000000 MHz**


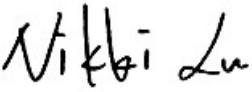
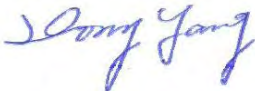
PRODUCT TYPE **TYPE US 1.6x1.2 GOLD-TIN SEALED CRYSTAL**

PART NUMBER **US3200005Z**

CUSTOMER P/N \_\_\_\_\_

ISSUE DATE **August 6, 2015**

VERSION **A**

APPROVED	PREPARED	QA
		
APPROVED BY CUSTOMER		
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/>

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

**A Company of PERICOM Semiconductor Corporation**

# TYPE US 1.6x1.2 GOLD-TIN SEALED CRYSTAL

## US3200005Z

VER.A 06-AUG-15

### VERSION HISTORY

Version No.	Version Date	Customer Receipt Date	Supplier Receipt Date	Description	Notes
A	Aug. 6, 2015			Initial Release	

# TYPE US 1.6x1.2 GOLD-TIN SEALED CRYSTAL

## US3200005Z

VER.A 06-AUG-15

### ELECTRICAL SPECIFICATIONS

Item	Symbol	Specifications	Units	Notes
Nominal Frequency	Fn	32.000000	MHz	
Mode of Oscillation	MO	AT Cut-Fundamental		
Calibration Load Capacitance	CL	8	pF	
Calibration Tolerance	FL	± 10	ppm	at 25°C±3°C
Operating Temperature Range	TR	-20 to +70	°C	
Frequency Stability(Frequency Deviation over the Operating Temperature Range)	F/T	± 10	ppm	Reference to the Frequency at 25°C
Operating Drive Level		10	μW	
Maximum Drive Level		100	μW	
Equivalent Series Resistance	ESR	80	Ω	Max.
Shunt Capacitance	C0	3	pF	Max.
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).

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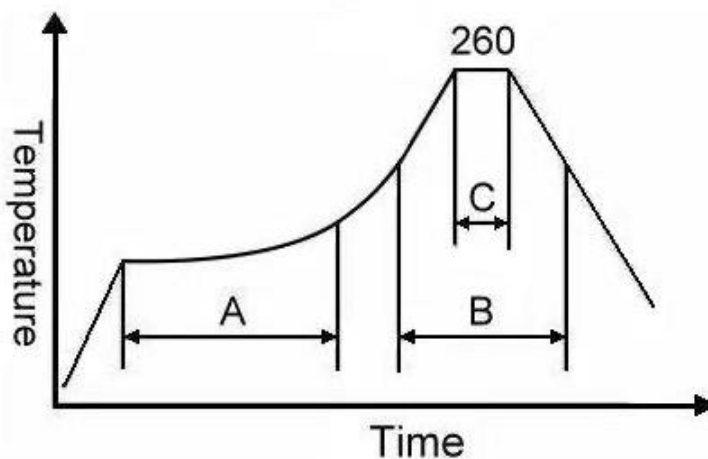
## RELIABILITY SPECIFICATIONS

### 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

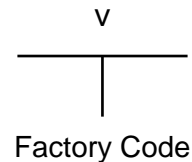
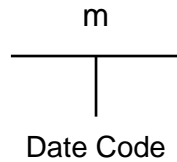
For soldering reflow profile and reliability test ratings go to: <http://www.pericom.com/pdf/sre/reflow.pdf>

# TYPE US 1.6x1.2 GOLD-TIN SEALED CRYSTAL

**US3200005Z**

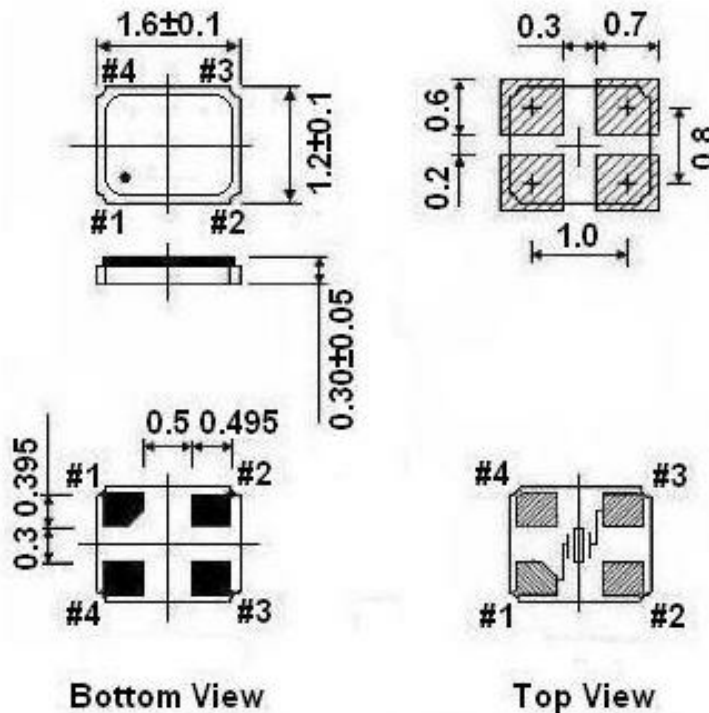
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## MARKING



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

Recommended Land Pattern



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

**Notes:**

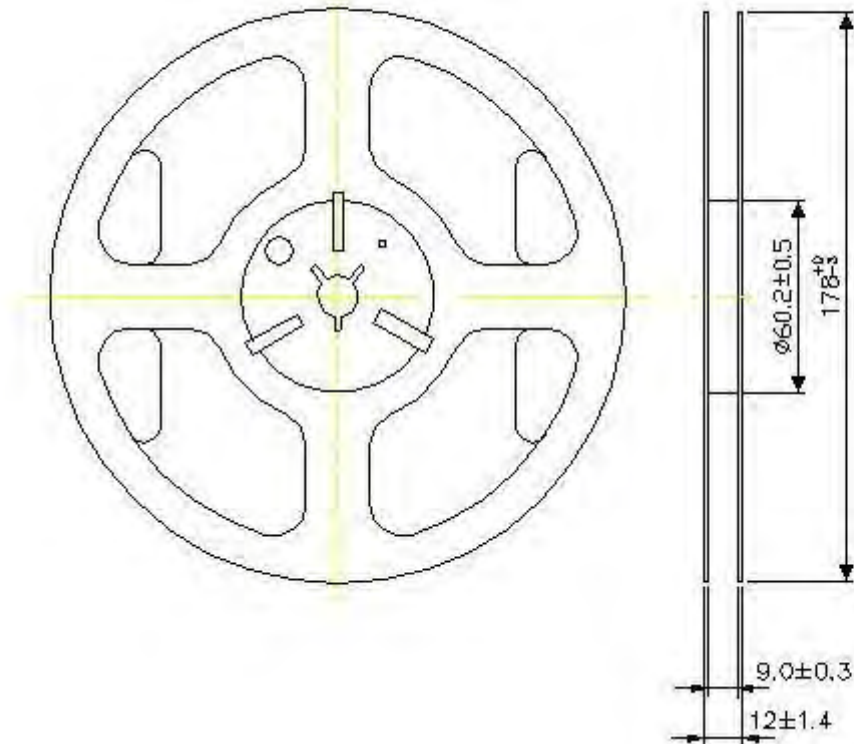
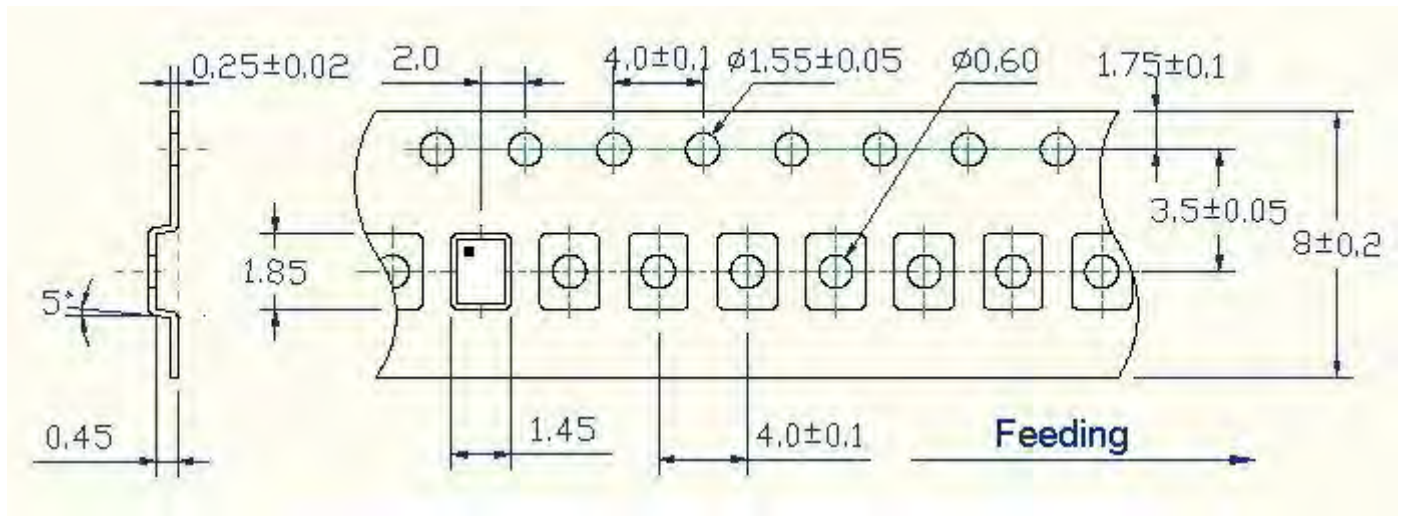
1. Package drawings are for reference only, and the appearances of objects may vary. Actual packages are based on the real product.
2. The marking dot denotes Pin#1.
3. The position and shape of the chamfer pin may vary and are based on the real product.

# TYPE US 1.6x1.2 GOLD-TIN SEALED CRYSTAL

## US3200005Z

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### Tape & Reel



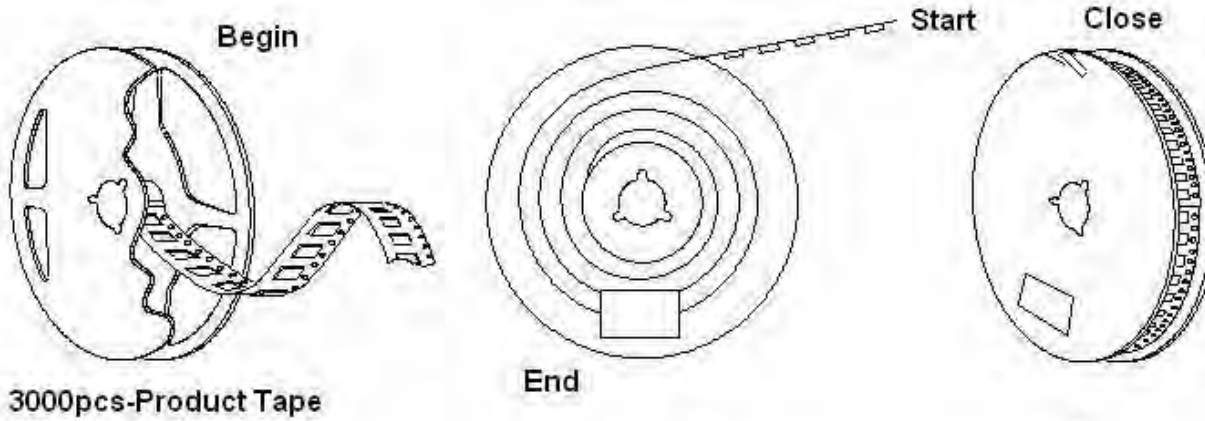
1. 230mm minimum leader which consist of carrier and/or tape followed by a minimum of 160mm of empty carrier tape sealed with cover tape.
2. 160mm minimum trailer of empty carrier tape sealed with cover tape.

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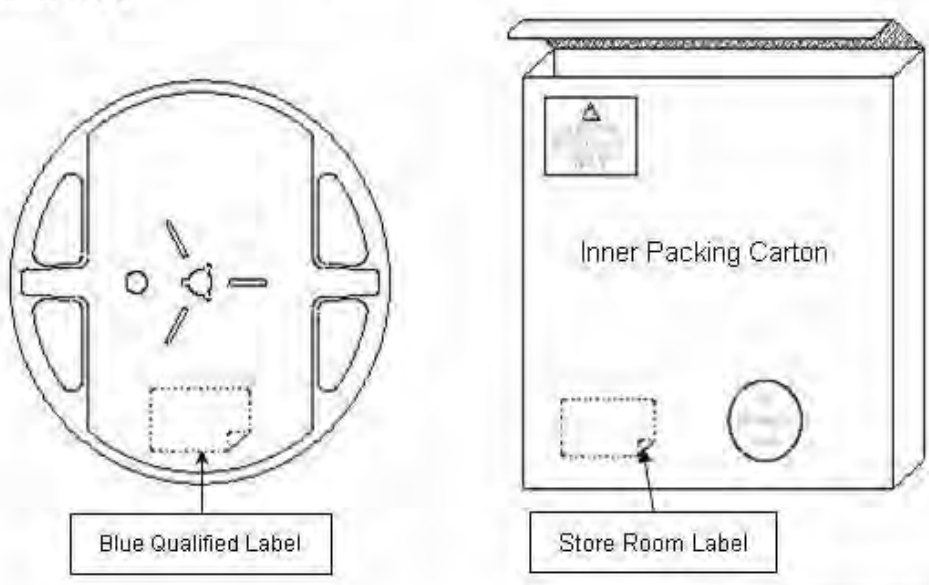
## US3200005Z

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### PACKING

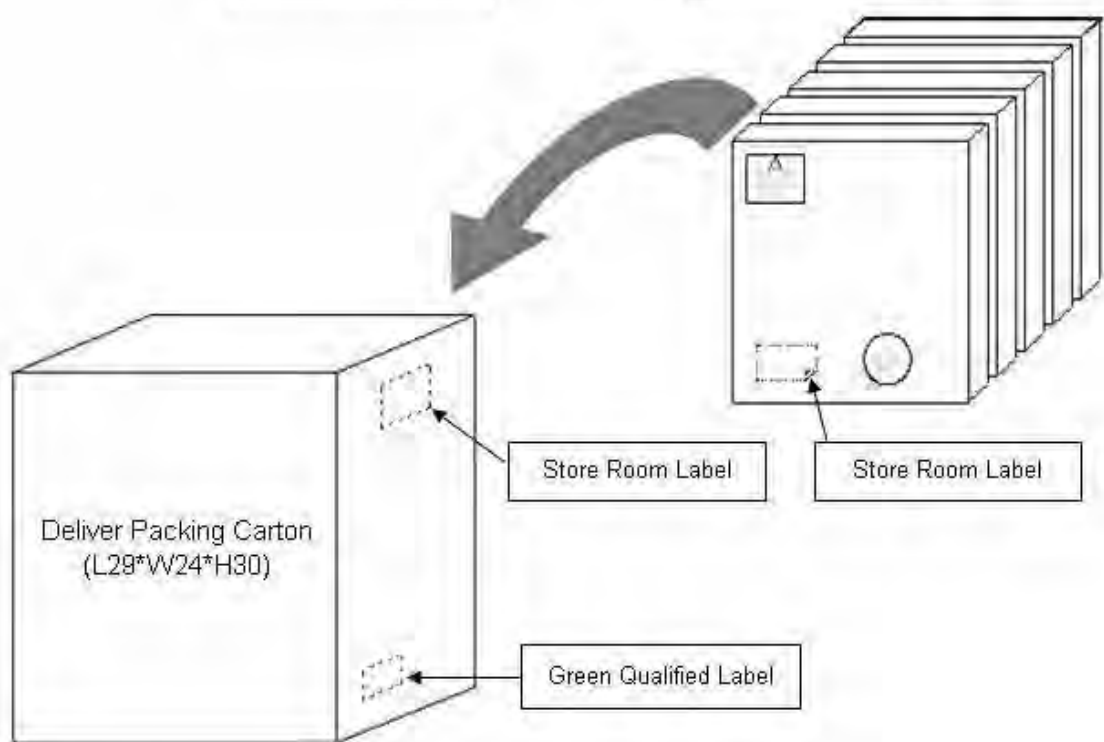


3000pcs-Product Tape



Blue Qualified Label

Store Room Label



Store Room Label

Store Room Label

Green Qualified Label

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- ⊖ [Diodes Incorporated Information](#)

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- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management