



PSE Technology Corporation

SPECIFICATION FOR APPROVAL

CUSTOMER _____

NOMINAL FREQUENCY 25.000000 MHz

PRODUCT TYPE TYPE WL 2.5X2.0 TIGHT TEMPERATURE STABILITY CRYSTAL OSCILLATOR

SPEC. NO. (P/N) WL2125001Z

CUSTOMER P/N _____

ISSUE DATE November 21, 2013

VERSION 01

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

PSE Technology Corporation

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

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

TYPE WL 2.5X2.0 TIGHT TEMPERATURE STABILITY CRYSTAL OSCILLATOR

WL2125001Z

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ELECTRICAL SPECIFICATIONS

SRe Part Number : WL2125001Z

Item	Symbol	Specifications	Units	Notes
Nominal Frequency	F _o	25.000000	MHz	
Operating Temperature Range	T _R	-20 to +70	°C	
Storage Temperature Range		-40 to +85	°C	
Supply Voltage	V _{DD}	+3.3 ± 5.0%	V	
Initial Frequency Accuracy		± 2.0	ppm	Max. at 25°C
Frequency Stability vs. Temperature	FT	± 10	ppm	Max.
Logic Type	LT	CMOS		
Supply Current	I _{DD}	4	mA	Max.
Start Up Time v.s Output Level		2	msec	Max, 90% of specified output level
Output Logic "0" Level	V _{OL}	0.4	V	Max.
Output Logic "1" Level	V _{OH}	V _{DD} -0.4	V	Min.
Output Load		15	pF	
Duty Cycle	DC	45 / 55	%	Measured 50% V _{DD}
Rise / Fall Time	T _R /T _F	1 to 6	ns	Max. measured 10/90% of Waveform
Frequency Overall Stability		± 20	ppm	±5% V _{DD} change, ±10% load change, 10 years aging
Phase Noise		-137	dBc/Hz	Typ, at 1kHz offset
Phase Noise		-150	dBc/Hz	Typ, at 10kHz offset
Phase Noise		-156	dBc/Hz	Typ, at 100kHz offset
Phase Noise		-160	dBc/Hz	Typ, at 1MHz offset
Phase Noise		-160	dBc/Hz	Typ, >1MHz offset

※ 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).

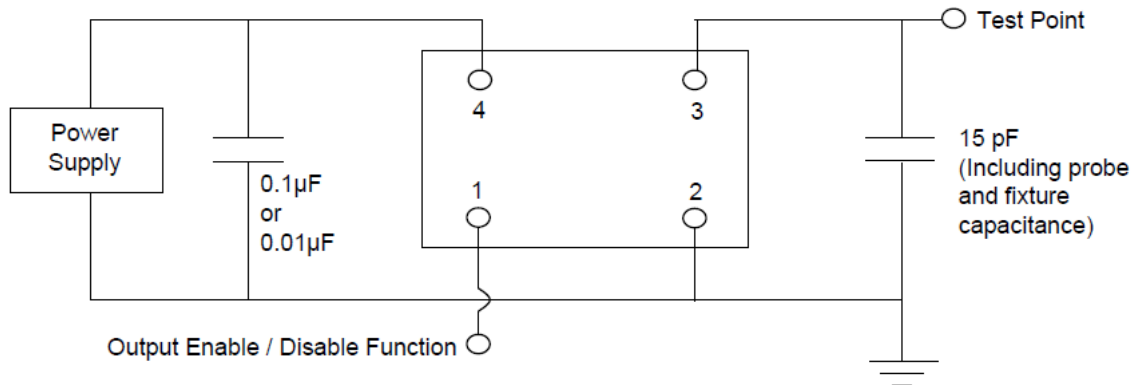


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TEST CIRCUIT



RELIABILITY SPECIFICATIONS

ENVIRONMENTAL:

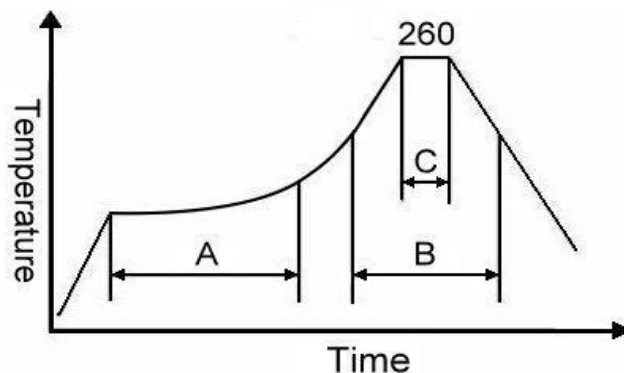
- a) THERMAL SHOCK: MIL-STD-883, Method 1011, Condition A
- b) MOISTURE RESISTANCE: MIL-STD-883, Method 1004
- c) VIBRATION: MIL-STD-883, Method 2007, Condition A
- d) RESISTANCE TO SOLDERING HEAT: J-STD-020D Table 5-2 Pb-free devices (except 2 cycles max)
- e) HAZARDOUS SUBSTANCE: Pb - free and RoHS Compliant.

MECHANICAL:

- a) SHOCK: MIL-STD-883, Method 2002, Condition B
- b) SOLDERABILITY: JESD22-B102-D Method 2 (Preconditioning E)
- c) TERMINAL STRENGTH: MIL-STD-883, Method 2004, Test Condition D
- d) GROSS LEAK: MIL-STD-883, Method 1014, Condition C
- e) FINE LEAK: MIL-STD-883, Method 1014, Condition A2, $R1=2 \times 10^{-8}$ atm cc/s
- f) SOLVENT RESISTANCE: MIL-STD-202, Method 215

SUGGESTED IR REFLOW PROFILE

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



Note:

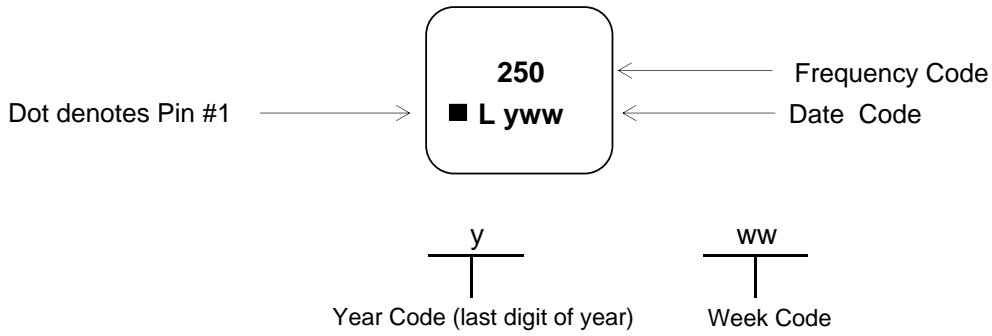
	Stage	Temperature	Time
A	Preheat	150~200°C	60~120 Sec
B	Primary Heat	217°C	60~150 Sec
C	Peak	260°C	10 Sec

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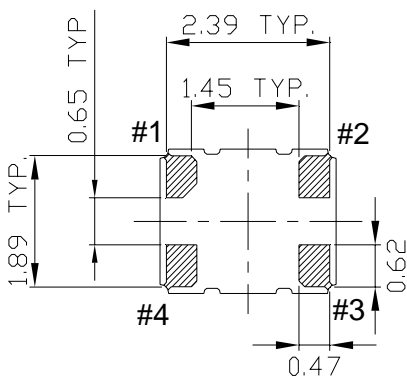
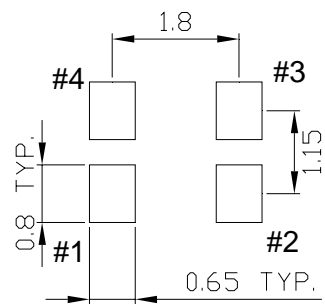
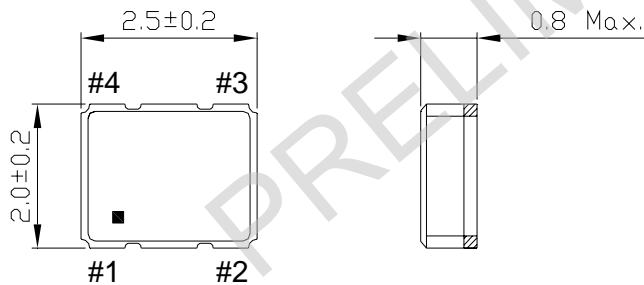
MARKING



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

Recommended Land Pattern

(TOP VIEW)



Pin Functions:

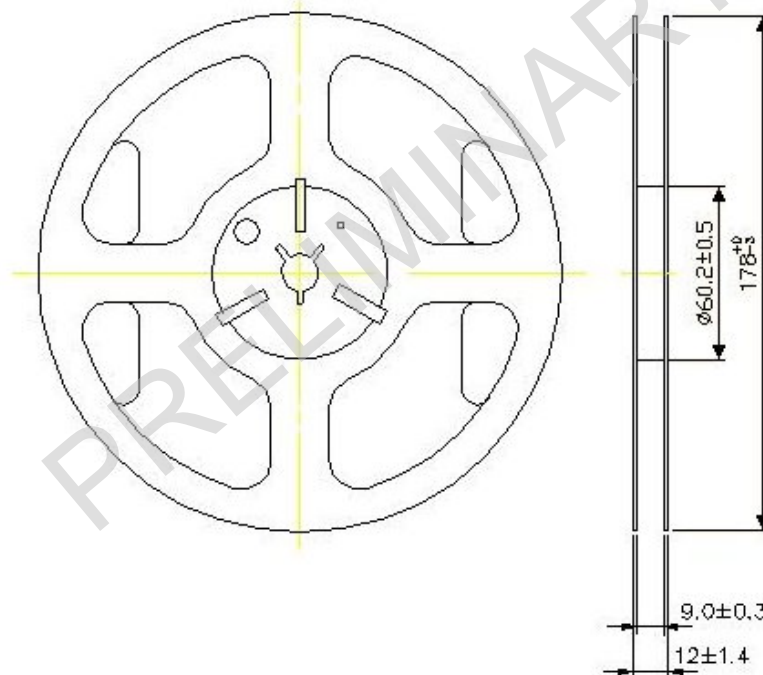
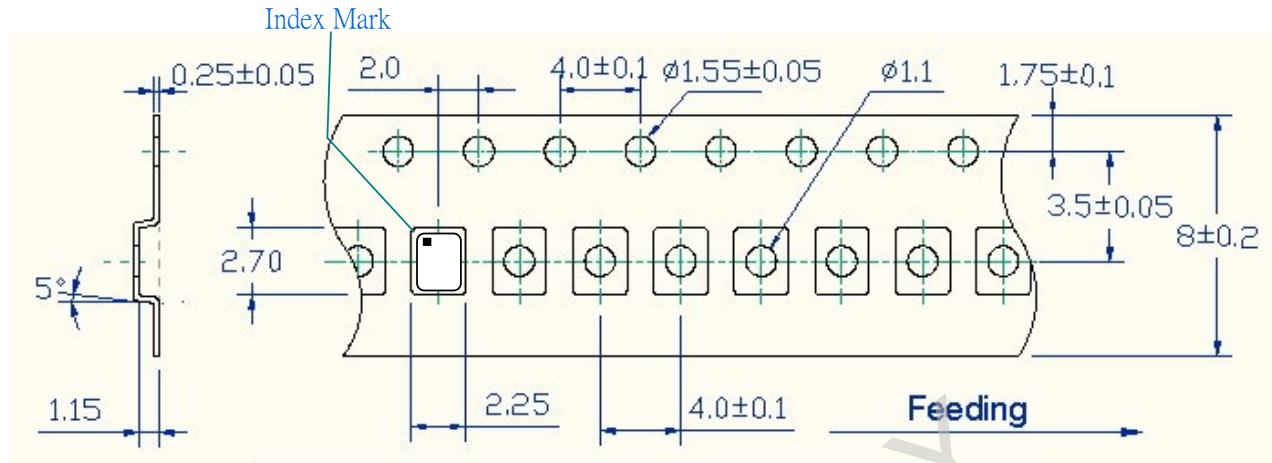
Pin	Function
1	OE
2	Ground
3	Output
4	V _{DD}

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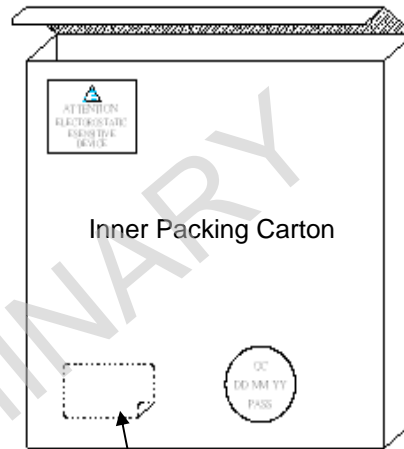
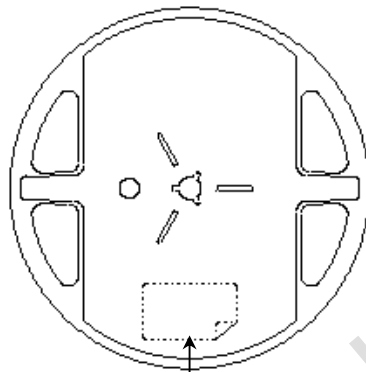
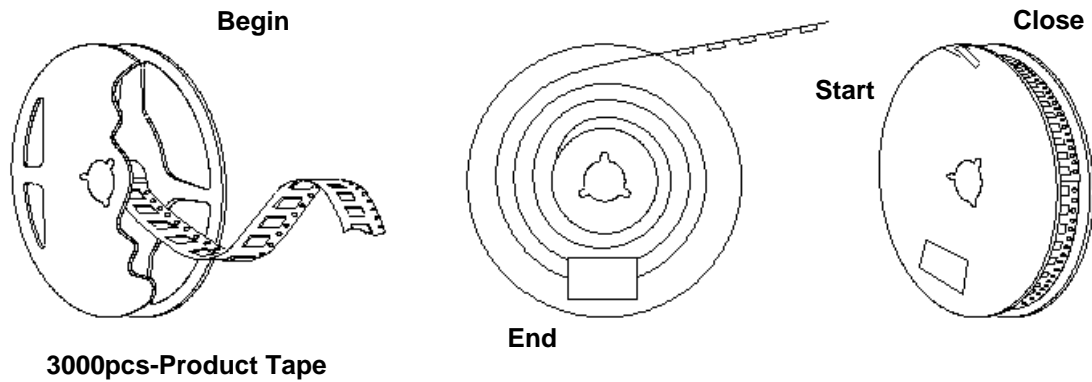
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TAPE&REEL



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.

PACKING



PRELIMINARY

