

# **PSE Technology Corporation** SPECIFICATION FOR APPROVAL

CUSTOMER	
NOMINAL FREQUENCY	25.000000 MHz
PRODUCT TYPE	TYPE FJ 2.5x2.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR
SPEC. NO. ( P/N )	FJ2500036Z
CUSTOMER P/N	
ISSUE DATE	August 6, 2015
VERSION	A

APPROVED	PREPARED	QA	
Brenda	Clame	Dong Jang	
APPROVED BY (	APPROVED BY CUSTOMER:		
Please return one copy wit	th approval to PSE-TW		

# **PSE Technology Corporation**

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

\*Pb-free

\*RoHS Compliant

\*HF-Halogen Free

\*REACH Compliant



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

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# **VERSION HISTORY**

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

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#### **ELECTRICAL SPECIFICATIONS**

SRe Part Number: FJ2500036Z

Item	Symbol	Specifications	Units	Notes
Nominal Frequency	Fo	25.000000	MHz	
Frequency Stability	FT	± 25	ppm	**See note
Operating Temperature Range	TR	-20 to +70	°C	
Supply Voltage	$V_{DD}$	+1.8 ± 5%	V	
Logic Type	LT	LVCMOS		
Supply Current, Output Enabled	I <sub>DD</sub> /OE	6	mA	Max
Supply Current, Output Disabled	I <sub>DD</sub> /OD	10	μΑ	Max
Duty Cycle (Symmetry)	DC/SY	45 / 55	%	Measured 50% of Waveform
Rise / Fall Time	$T_R/T_F$	6	ns	Max. measured 10 / 90% of Waveform
Output Voltage "0" Level	V <sub>OL</sub>	10% V <sub>DD</sub>	V	Max
Output Voltage "1" Level	V <sub>OH</sub>	90% V <sub>DD</sub>	V	Min
Output Load	CL	15	pF	Max
Jitter, Phase	RMS	1.5	ps	Max. 12KHz ~ 5MHz Frequency Band
Jitter, Accumulated	RMS(1-σ)	5	ps	Typ. 20,000 Consecutive Periods
Jitter, Peak to Peak	Pk-Pk	50	ps	Max. 100,000 Random Periods
Start Up Time		10	ms	Max.
Storage Temperature Range		-55 to +125	°C	

<sup>\*</sup> 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).

#### Output Enable / Disable Function

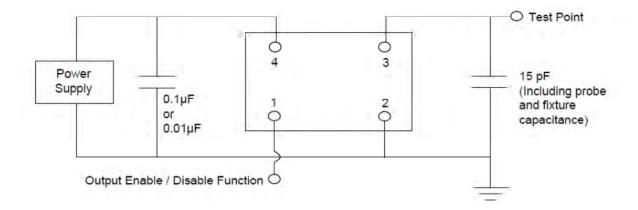
Parameter	Min.	Тур.	Max.	Units	Notes
Input Voltage (Pin1), Output Enable	0.7V <sub>DD</sub>			V	Or Open
Input Voltage (Pin1), Output Disable (low power standby)			$0.3V_{DD}$	V	Output is Hi-Z
Internal Pullup Resistance	30			ΚΩ	
Output Disable Delay			50	ns	
Output Enable Delay			50	us	

<sup>\*\*</sup>Stability includes all combinations of Operating Temperature, Load changes, rated Input (Supply) Voltage changes, Initial Calibration Tolerance (25°C), Aging (1 year at 25°C Average Effective Ambient Temperature), Shock and Vibration.

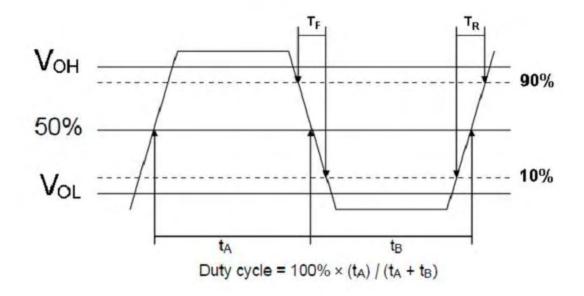
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#### **TEST CIRCUIT**



#### **OUTPUT WAVEFORM**



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#### **RELIABILITY SPECIFICATIONS**

#### **ENVIRONMENTAL:**

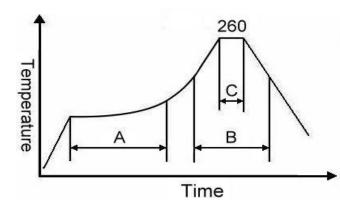
- a) THERMAL SHOCK: MIL-STD-883, Method 1011, Condition A
- b) MOISTURE RESISTANCE: MIL-STD-883, Method 1004
- c) VIBRATION: MIL-STD-883, Method 2007, Condition A
- d) RESISTANCE TO SOLDERING HEAT: J-STD-020D Table 5-2 Pb-free devices (except 2 cycles max)
- e) HAZARDOUS SUBSTANCE: Pb free and RoHS/Green 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=2x10<sup>-8</sup> atm cc/s
- f) SOLVENT RESISTANCE: MIL-STD-202, Method 215

#### SUGGESTED IR REFLOW PROFILE

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



#### Note:

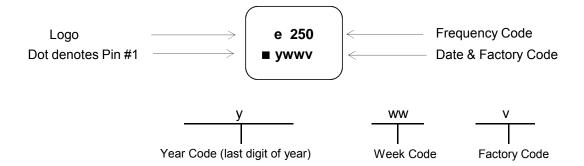
	Stage	Temperature	Time
Α	Preheat	150~200°C	60~120 Sec
В	Primary Heat	217°C	60~150 Sec
С	Peak	260°C	10 Sec

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

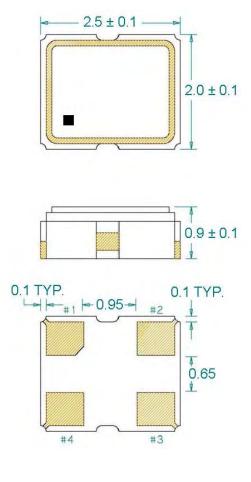
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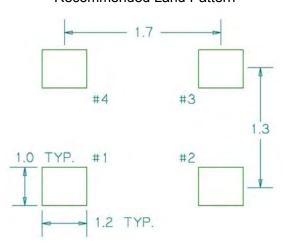
#### **MARKING**



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



#### Recommended Land Pattern\*



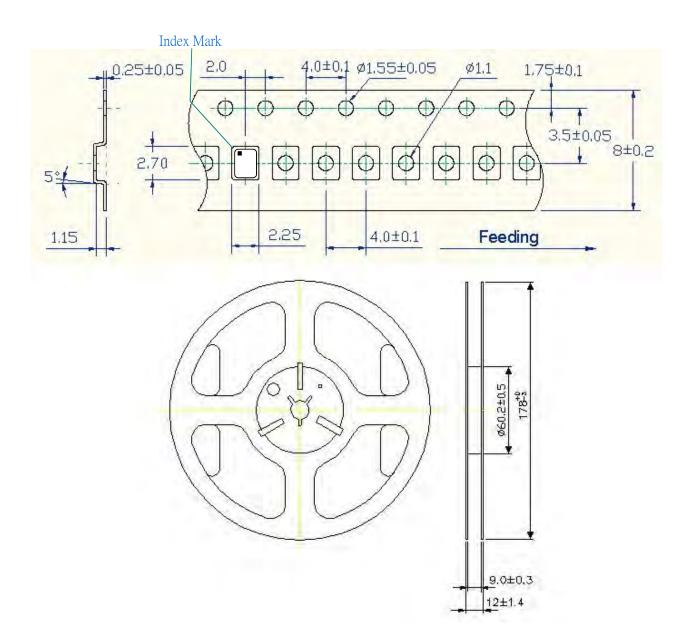
\*External high-frequency power decoupling is recommended.(see test circuit for minimum recommendation). To ensure optimal performance, do not route traces beneath the package.

Pin	Function
1	OE
2	Ground
3	Clock Output
4	V <sub>DD</sub>

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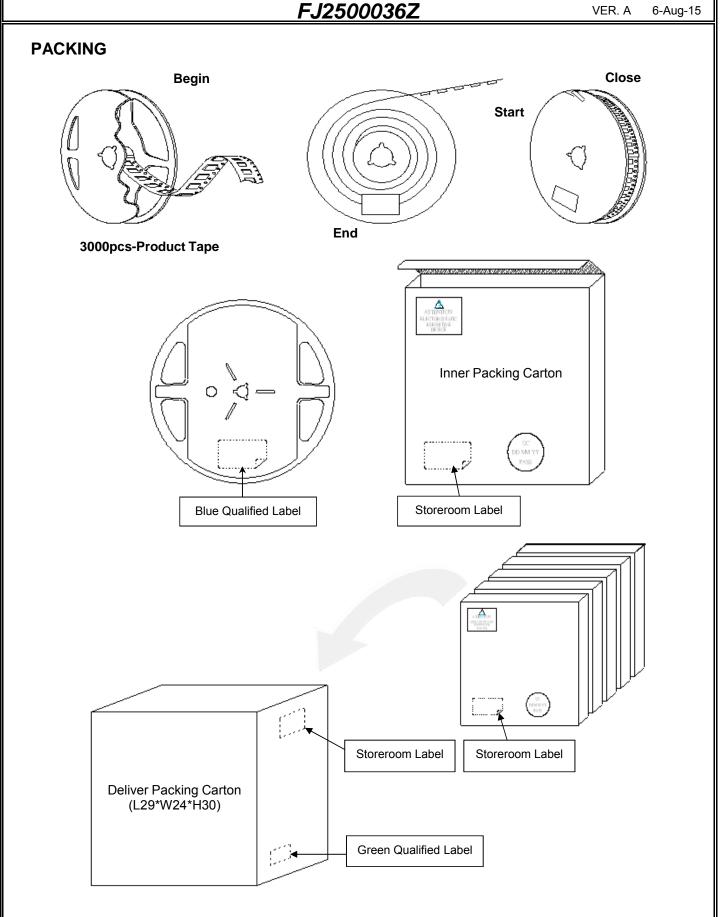
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#### **TAPE & REEL**



- 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.

# TYPE FJ 2.5x2.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR F.125000367 VER. A 6-Aug-15





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# 单击下面可查看定价,库存,交付和生命周期等信息

>>Diodes Incorporated(达迩科技(美台))