

## **PSE Technology Corporation** SPECIFICATION FOR APPROVAL

CUSTOMER	
NOMINAL FREQUENCY	32.768000 KHz
PRODUCT TYPE	TYPE KK 3.2x2.5 SEAM SEALED CRYSTAL CLOCK OSCILLATOR
SPEC. NO. ( P/N )	KK3270046
CUSTOMER P/N	
ISSUE DATE	May 26, 2011
VERSION	A

APPROVED	PREPARED	QA	
Brenda	Clane	Gather	
APPROVED BY	APPROVED BY CUSTOMER:		
Please return one copy w	ith 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 \*\*\*

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KK3270046

VER. A 2-Jun-11

## **VERSION HISTORY**

Version No.	Version Date	Customer Receipt Date	Supplier Receipt Date	Description	Notes
А	May.26,2011			Initial Release	



## KK3270046

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#### **ELECTRICAL SPECIFICATIONS**

SRe Part Number: KK3270046

Item	Symbol	Specifications	Units	Notes
Nominal Frequency	Fo	32.768000	KHz	
Frequency Stability	FT	± 25	ppm	**See note
Operating Temperature Range	TR	-40 to +85	°C	
Supply Voltage	$V_{DD}$	+ 3.3V ± 10%	V	
Logic Type	LT	LVCMOS		
Supply Current, Output Enabled	I <sub>DD</sub> /OE	0.5	mA	Max.
Supply Current, Output Disabled	I <sub>DD</sub> /OD	10	μA	Max.
Duty Cycle (Symmetry)	DC/SY	45 / 55	%	Measured 50% of Waveform
Rise / Fall Time	T <sub>R</sub> /T <sub>F</sub>	15	ns	Measured at 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
Start Up Time		10	ms	Мах.
Storage Temperature Range		-55°C to +125°C	°C	

★ 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	$0.7V_{DD}$			V	Or Open
Input Voltage (Pin1), Output Disable (low power standby)			0.3V <sub>DD</sub>	V	Output is Hi-Z
Internal Pullup Resistance		470		ΚΩ	
Output Disable Delay			100	ns	
Output Enable Delay			10	ms	

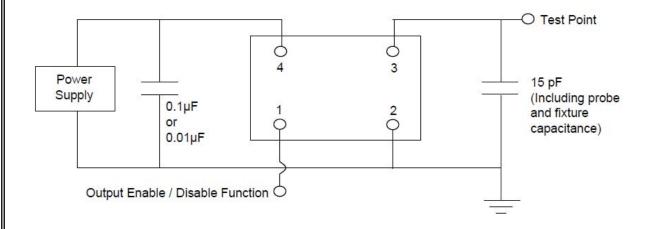


<sup>\*\*</sup>Stability includes all combinations of Operating Temperature, Load changes, rated Input (Supply) Voltage changes, Initial Calibration Tolerance (25°C), Aging (1 year at 25°C Average Effective Ambient Temperature), Shock and Vibration.

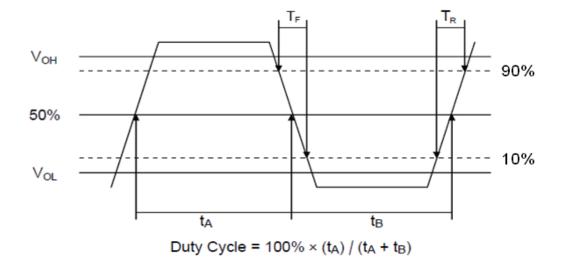
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#### **TEST CIRCUIT**



#### **OUTPUT WAVEFORM**



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#### **RELIABILITY SPECIFICATIONS**

#### **ENVIRONMENTAL:**

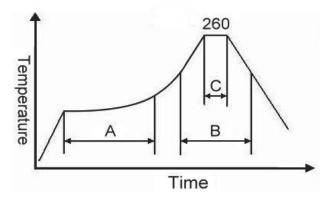
- a) THERMAL SHOCK: MIL-STD-883, Method 1011, Condition A
- b) MOISTURE RESISTANCE: MIL-STD-883, Method 1004
- c) VIBRATION: MIL-STD-883, Method 2007, Condition A
- d) RESISTANCE TO SOLDERING HEAT: J-STD-020D Table 5-2 Pb-free devices (except 2 cycles max)
- e) HAZARDOUS SUBSTANCE: Pb free and RoHS Compliant.

#### **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



	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

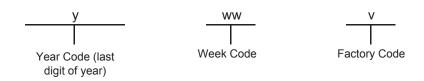
For soldering reflow profile and reliability test ratings go to: http://www.pericom.com/pdf/sre/reflow.pdf

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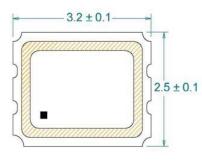
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#### **MARKING**

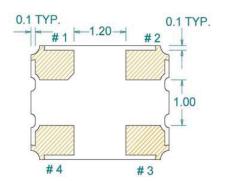




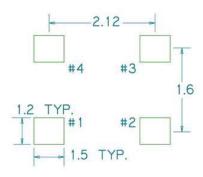
#### **MECHANICAL DRAWINGS** (Scale:None. Dimensions are in mm.)







#### 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.

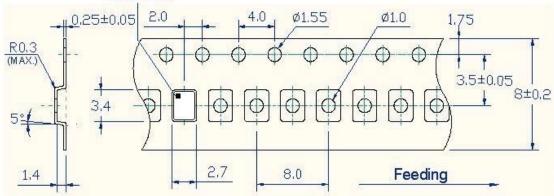
Pin	Function
1	OE
2	Ground
3	Clock Output
4	$V_{DD}$

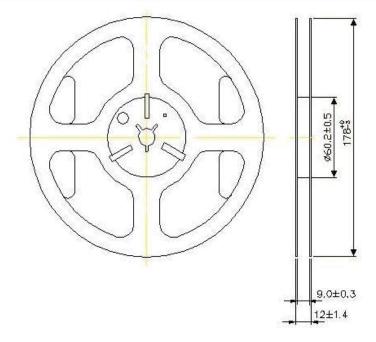
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#### TAPE&REEL

## Index Mark





- 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 KK 3.2x2.5 SEAM SEALED CRYSTAL CLOCK OSCILLATOR KK3270046 VER. A 2-Jun-11 **PACKING** Close **Begin Start End** 3000pcs-Product Tape Inner Packing Carton Blue Qualified Label Storeroom Label Storeroom Label Storeroom Label Deliver Packing Carton (L29\*W24\*H30) Green Qualified Label



## 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))