



A Product Line of
Diodes Incorporated



SPECIFICATION FOR APPROVAL

CUSTOMER _____

NOMINAL FREQUENCY _____ 32.768 KHz _____

PRODUCT TYPE _____ TYPE KJ 2.5x2.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR _____

SPEC. NO. (P/N) _____ KJ3270007 _____

CUSTOMER P/N _____

ISSUE DATE _____ September 29, 2017 _____

VERSION _____ C _____

APPROVED	PREPARED	QA

Diodes Incorporation

No.2, Ziqiang 5th Rd., Zhongli Industrial Park,
Zhongli Dist., Taoyuan City 32063, Taiwan (R.O.C.)
TEL: 886-3-451-8888
FAX: 886-3-461-3865
<http://www.diodes.com>

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

TYPE KJ 2.5x2.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

KJ3270007

VER. C 29-Sep-17

VERSION HISTORY

Version No.	Version Date	Customer Receipt Date	Supplier Receipt Date	Description	Notes
A	Nov.20,2013			Initial Release	
B	Nov.22,2013			Changed Start up time & Output Enable Delay	
C	Sep.29,2017			Update logo	



TYPE KJ 2.5x2.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

KJ3270007

VER. C 29-Sep-17

ELECTRICAL SPECIFICATIONS

SRe Part Number : KJ3270007

Item	Symbol	Specifications	Units	Notes
Nominal Frequency	Fo	32.768	KHz	
Frequency Stability	FT	± 25	ppm	**See note
Operating Temperature Range	TR	-40 to +85	°C	
Supply Voltage	V _{DD}	+1.8 ± 5%	V	
Logic Type	LT	LVC MOS		
Supply Current, Output Enabled	I _{DD} /OE	60 / 80	µA	Typ. / Max.
Supply Current, Output Disabled	I _{DD} /OD	10	µA	Max
Duty Cycle (Symmetry)	DC/SY	45 / 55	%	Measured 50% of Waveform
Rise / Fall Time	T _R /T _F	15	ns	Max. measured 10 / 90% of Waveform
Output Voltage "0" Level	V _{OL}	10% V _{DD}	V	Max.
Output Voltage "1" Level	V _{OH}	90% V _{DD}	V	Min.
Output Load	CL	15	pF	Max.
Start Up Time		1	ms	Max.
Storage Temperature Range		-55 to +125	°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).

**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.

Output Enable / Disable Function

Parameter	Min.	Typ.	Max.	Units	Notes
Input Voltage (Pin1), Output Enable	0.7V _{DD}			V	Or Open
Input Voltage (Pin1), Output Disable (low power standby)			0.3V _{DD}	V	Output is Hi-Z
Output Disable Delay			0.1	µs	
Output Enable Delay			2	ms	

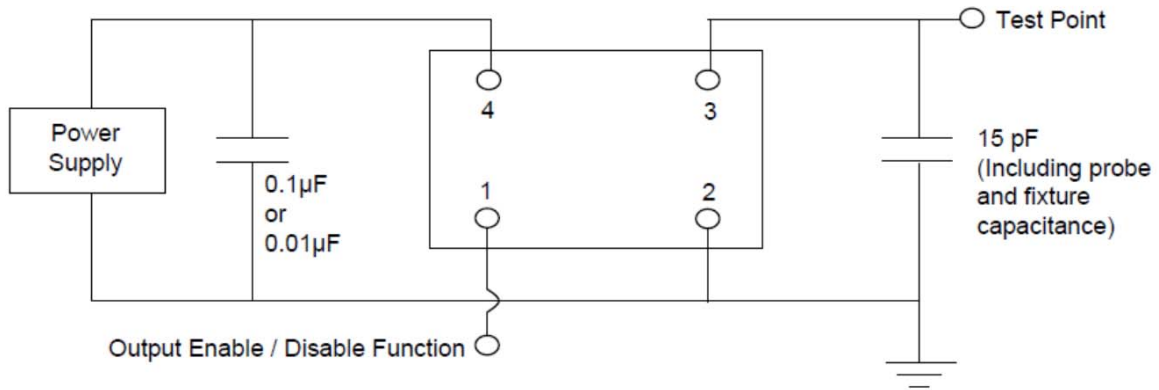


TYPE KJ 2.5x2.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

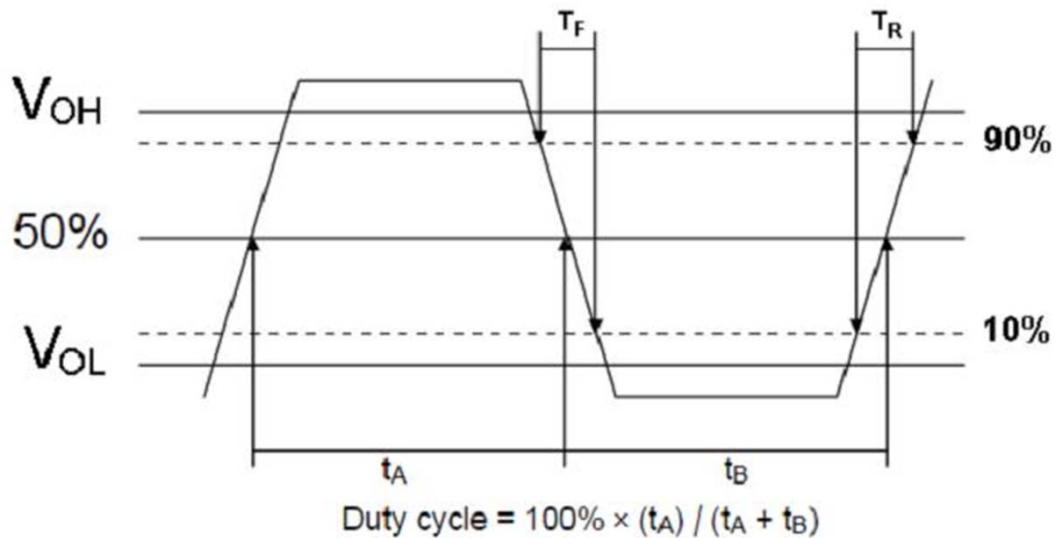
KJ3270007

VER. C 29-Sep-17

TEST CIRCUIT



OUTPUT WAVEFORM



TYPE KJ 2.5x2.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

KJ3270007

VER. C 29-Sep-17

RELIABILITY SPECIFICATIONS

ENVIRONMENTAL:

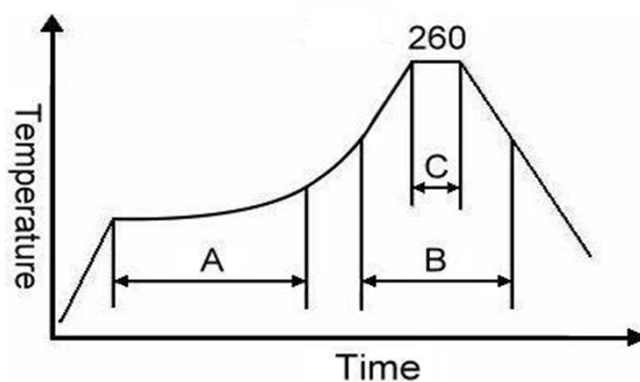
- a) THERMAL SHOCK: MIL-STD-883, Method 1011, Condition A
- b) MOISTURE RESISTANCE: MIL-STD-883, Method 1004
- c) VIBRATION: MIL-STD-883, Method 2007, Condition A
- d) RESISTANCE TO SOLDERING HEAT: J-STD-020D Table 5-2 Pb-free devices (except 2 cycles max)
- e) HAZARDOUS SUBSTANCE: Pb - free and RoHS/Green 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, $R1=2 \times 10^{-8}$ atm cc/s
- f) SOLVENT RESISTANCE: MIL-STD-202, Method 215

SUGGESTED IR REFLOW PROFILE

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



Note:

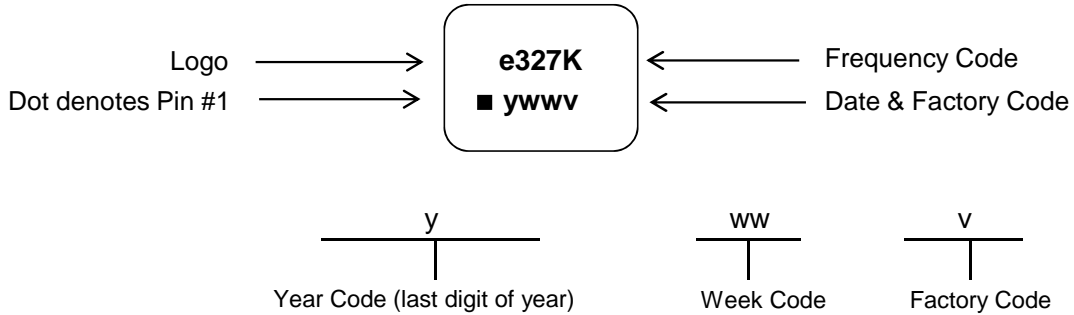
	Stage	Temperature	Time
A	Preheat	150~200°C	60~120 Sec
B	Primary Heat	217°C	60~150 Sec
C	Peak	260°C	10 Sec

TYPE KJ 2.5x2.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

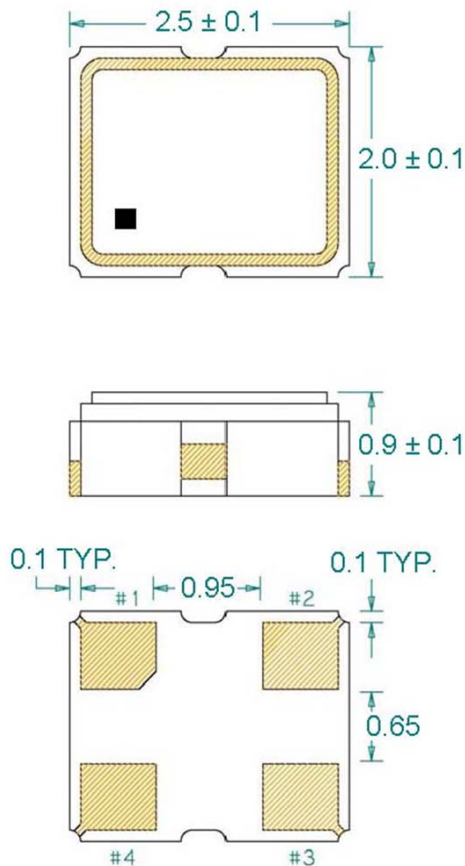
KJ3270007

VER. C 29-Sep-17

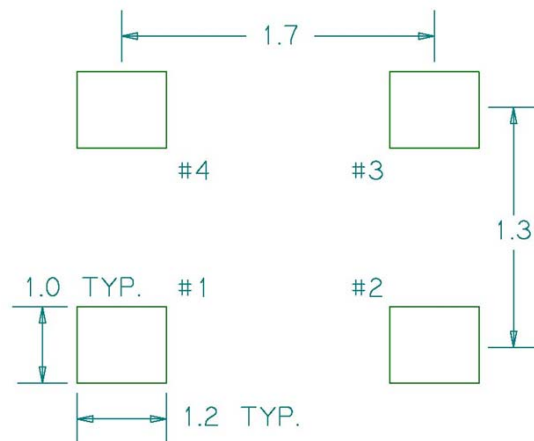
MARKING



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.

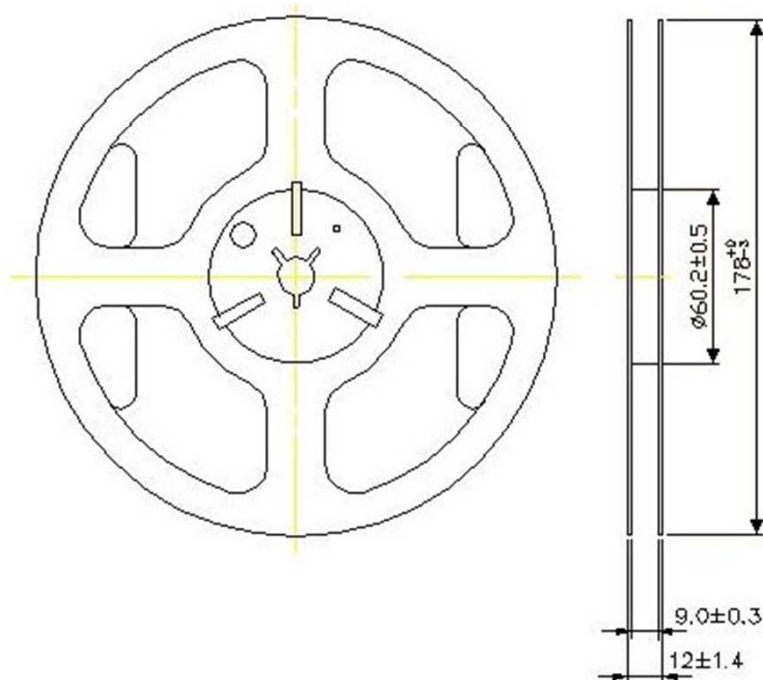
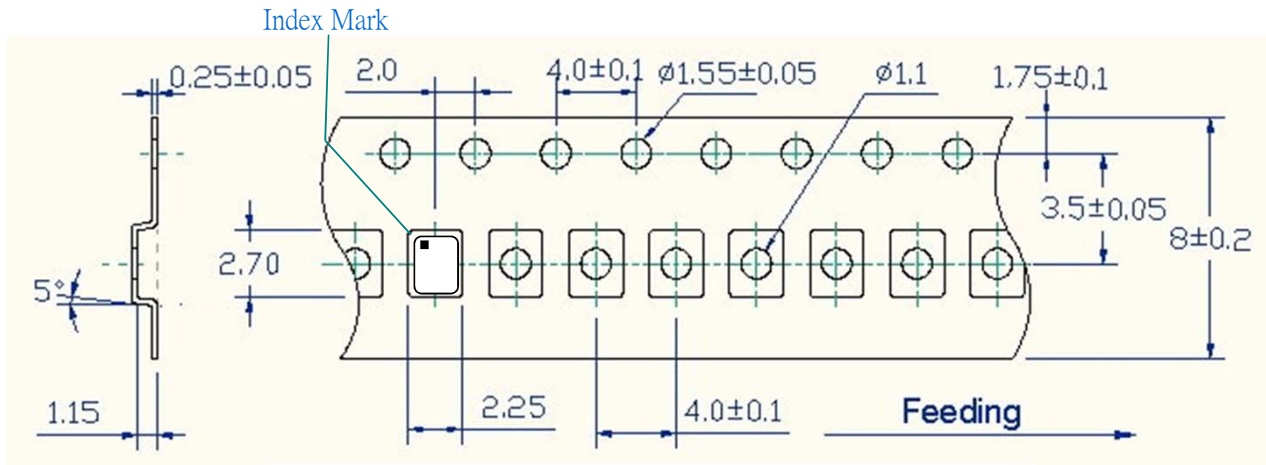
Pin	Function
1	OE
2	Ground
3	Clock Output
4	V _{DD}

TYPE KJ 2.5x2.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

KJ3270007

VER. C 29-Sep-17

TAPE & REEL



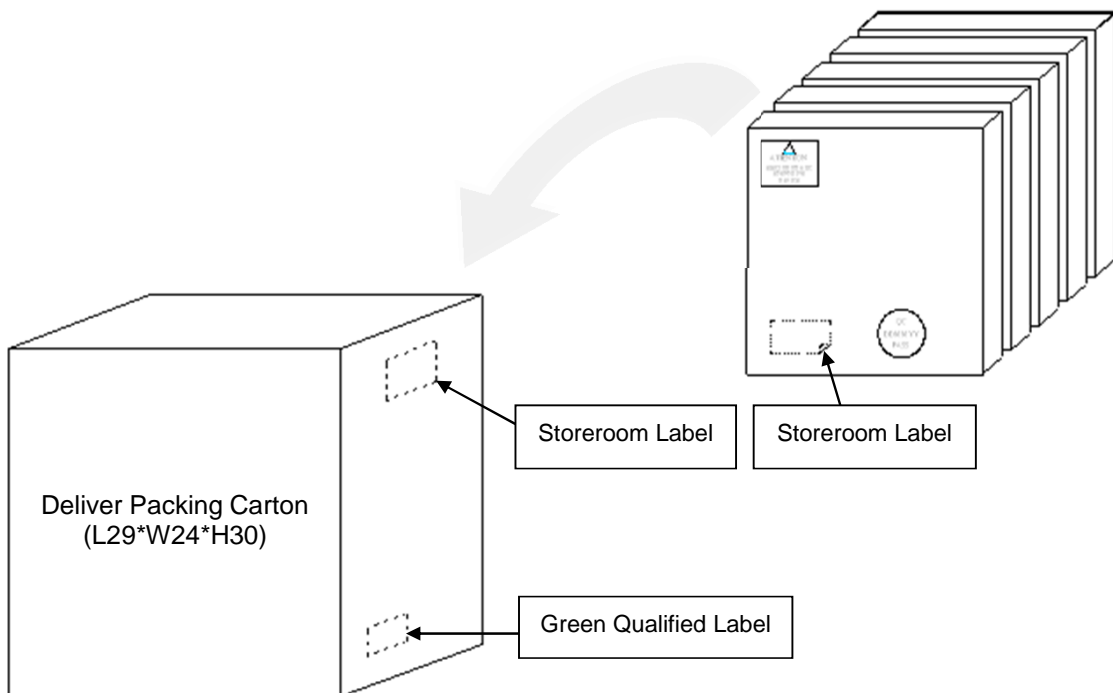
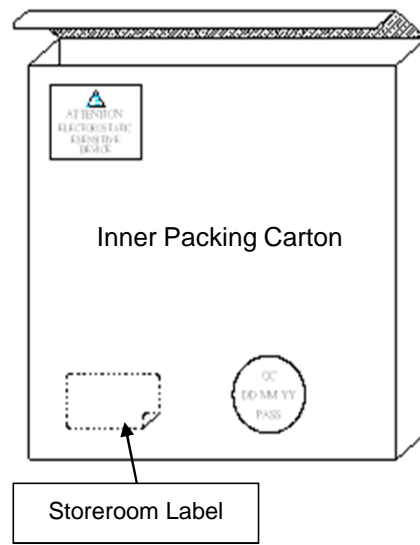
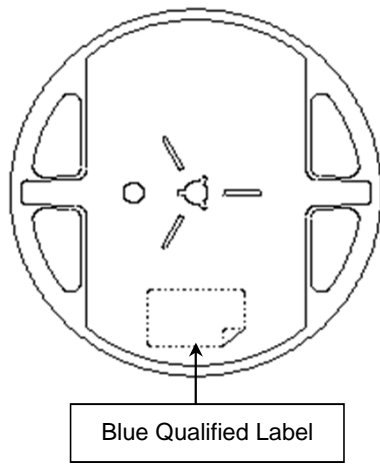
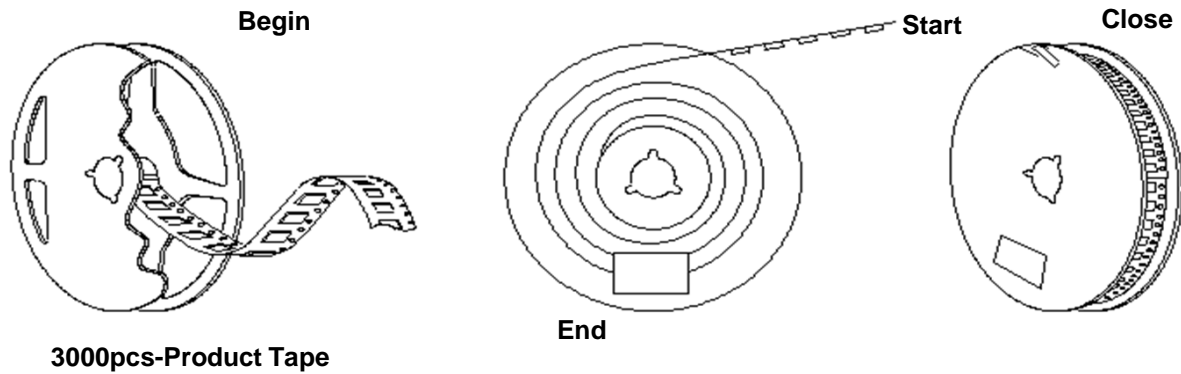
1. 230mm minimum leader which consist of carrier and/or tape followed by a minimum of 160mm of empty carrier tape sealed with cover tape.
2. 160mm minimum trailer of empty carrier tape sealed with cover tape.

TYPE KJ 2.5x2.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

KJ3270007

VER. C 29-Sep-17

PACKING



单击下面可查看定价，库存，交付和生命周期等信息

[>>Diodes Incorporated\(达达科技\(美台\)\)](#)