

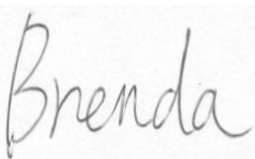
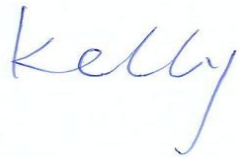



A Product Line of
Diodes Incorporated



SPECIFICATION FOR APPROVAL

CUSTOMER	
NOMINAL FREQUENCY	41.000000 MHz
PRODUCT TYPE	TYPE FL SEAM SEALED CRYSTAL
PART NUMBER	FL4100001
CUSTOMER P/N	
ISSUE DATE	March 8, 2018
VERSION	B

APPROVED	PREPARED	QA
		

Diodes Incorporated

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TEL:886-3-451-8888
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*Pb-free

*RoHS Compliant

*HF-Halogen Free

*REACH Compliant

TYPE FL SEAM SEALED CRYSTAL

FL4100001

VER.B 06-OCT-10

VERSION HISTORY

Version No.	Version Date	Description	Notes
A	Jan. 27, 2010	Initial Release	
B	Oct. 6, 2010	New Logo	
C	Aug. 3, 2011	Updated Suggested IR Reflow Profile & Format	
D	Mar. 8, 2018	Updated logo	

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FL4100001

VER.B 06-OCT-10

ELECTRICAL SPECIFICATIONS

Item	Symbol	Specifications	Units	Notes
Nominal Frequency	Fn	41.000000	MHz	
Mode of Oscillation	MO	AT Cut-Fundamental		
Calibration Load Capacitance	CL	10	pF	
Calibration Tolerance	FL	± 20	ppm	at 25°C $\pm 3^{\circ}\text{C}$
Operating Temperature Range	TR	-10 to +85	°C	
Frequency Stability(Frequency Deviation over the Operating Temperature Range)	F/T	± 20	ppm	Reference to the Frequency at 25°C
Operating Drive Level		200	μW	
Equivalent Series Resistance	ESR	50	Ω	Max.
Shunt Capacitance	C0	5	pF	Max.
Aging at 25°C		± 3	ppm	Max, 1st year
Storage Temperature		-55 to +125	°C	
Insulation Resistance		500	M Ω	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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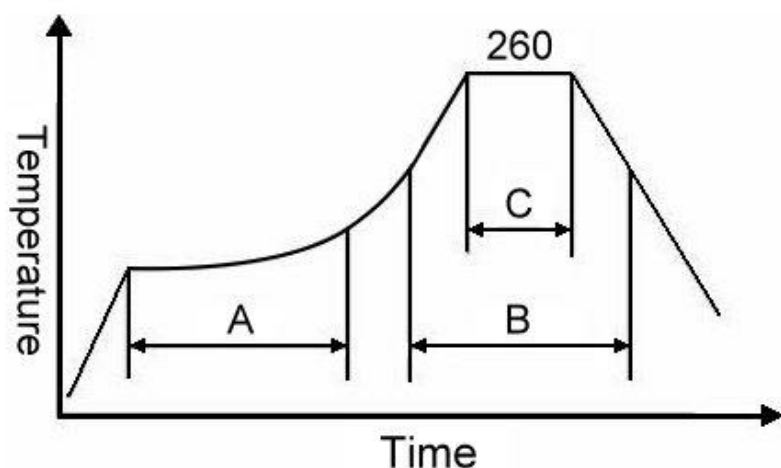
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RELIABILITY SPECIFICATIONS

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-020C Table 5.2 Pb free devices (3 cycles max)

SUGGESTED IR REFLOW PROFILE



Note:

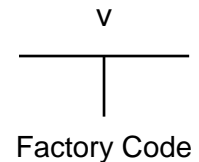
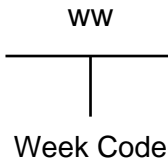
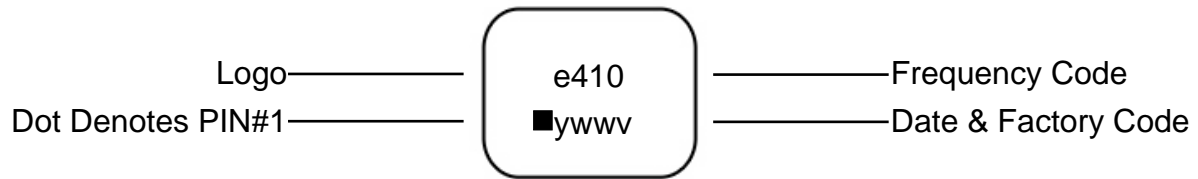
	Stage	Temperature	Time
A	Preheat	160~180°C	60~120 Sec
B	Primary Heat	220°C	60 Sec
C	Peak	260°C±5°C	10 Sec

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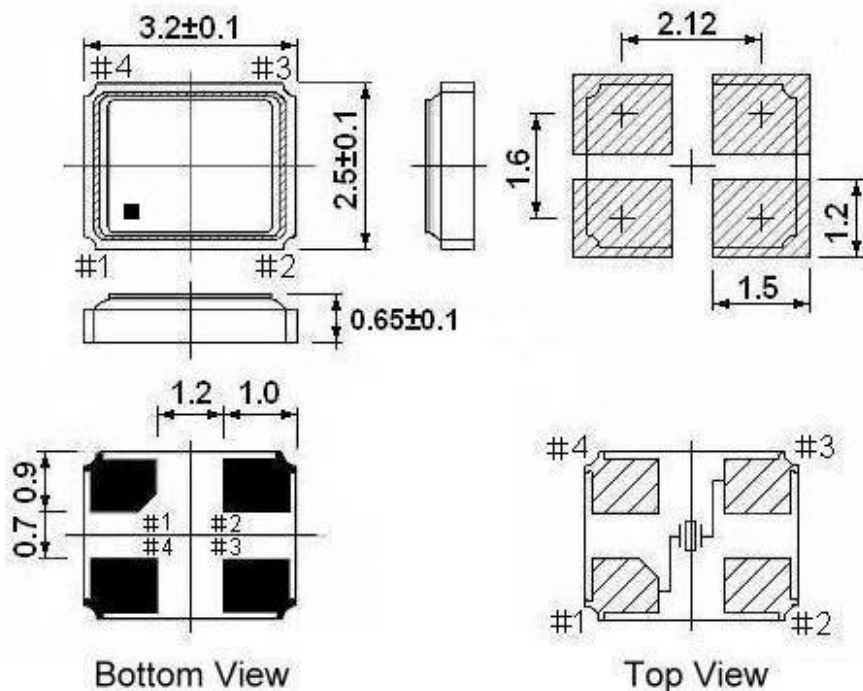
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MARKING



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



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

Note:

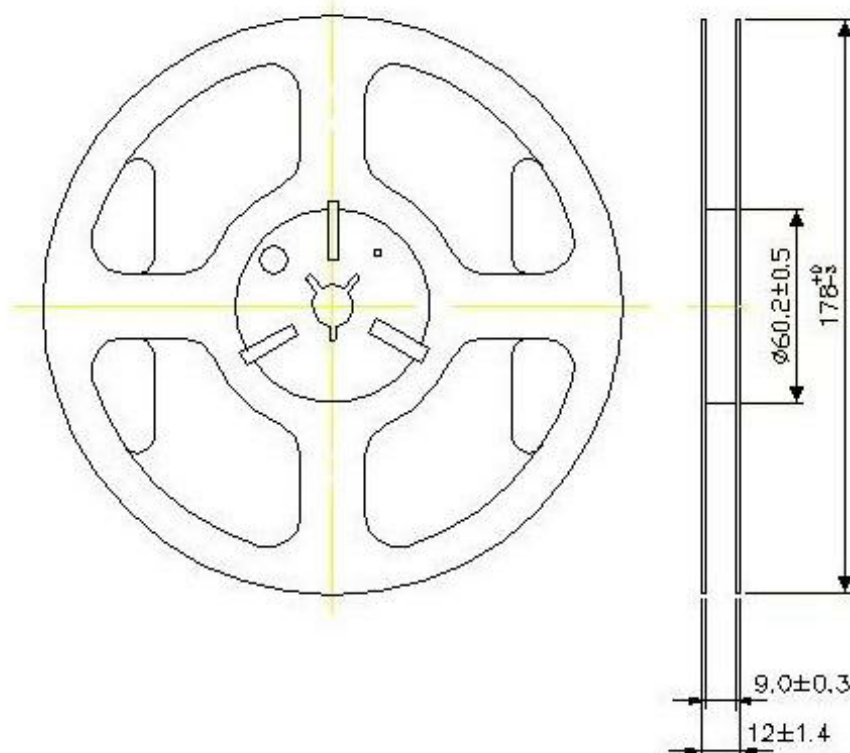
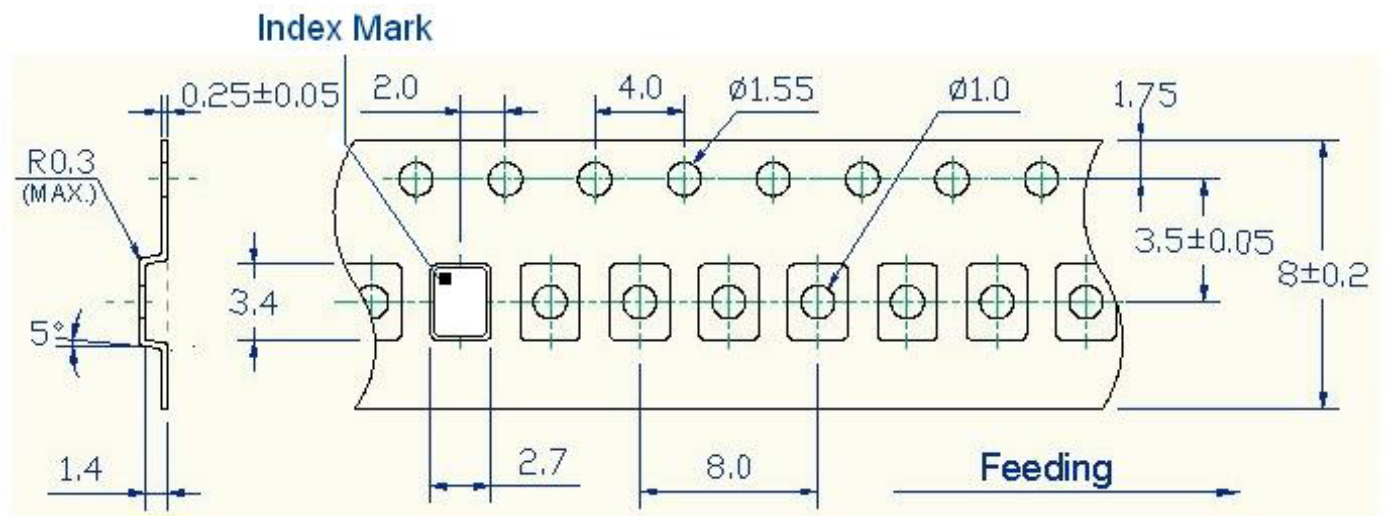
1. The marking dot denotes Pin#1.
2. Pin positions of the drawing is only for reference, and the Pin with chamfer is based on the real product.

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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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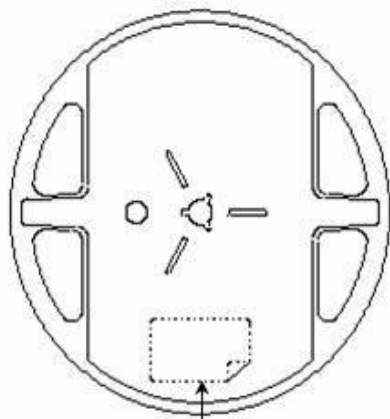
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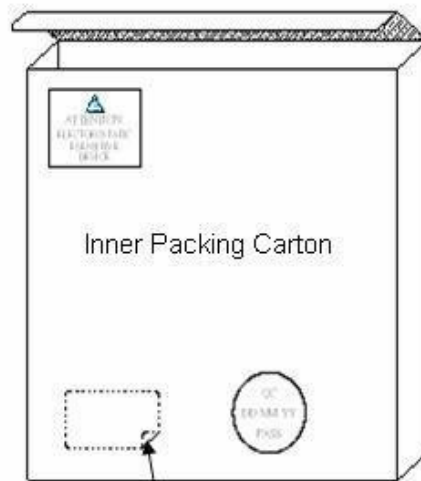
PACKING



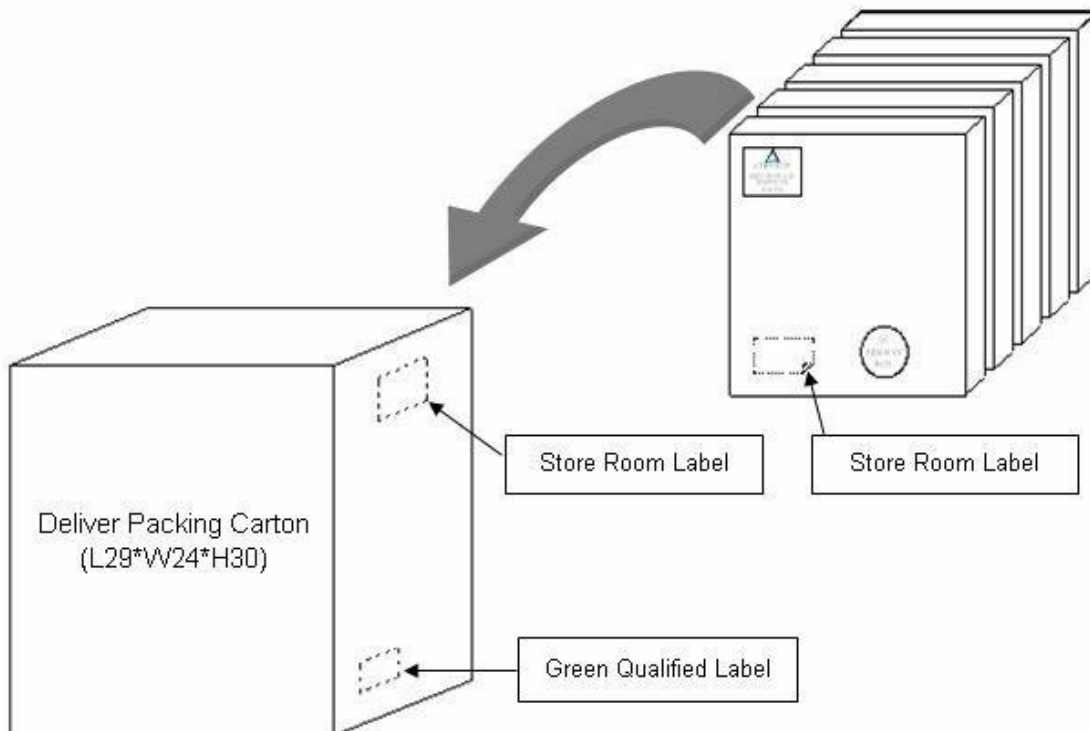
3000pcs-Product Tape



Blue Qualified Label



Store Room Label



Deliver Packing Carton
(L29*W24*H30)

Store Room Label

Store Room Label

Green Qualified Label