



- Ceramic Seam Weld Package
- Excellent Reliability Performance
- Ultra Miniature Package
- Available to Surface Mount Technology and IR Reflow Process
- Moisture Sensitivity Level (MSL) : Level-1
- AEC-Q200 Compliant

Description and Applications:

Surface mount 2.0mmx1.2mm crystal unit for use in communications devices,.

Electrical Specifications:

XTL2106	Specification
Nominal Frequency	32.768000 KHz
Storage Temperature Range	-40°C to +125°C
Operating Temperature Range	-40°C to +105°C
Turnover Temperature	25 +/- 5 °C
Parabolic Curvature Constant	-0.04 ppm /°C ² max.
Frequency Make Tolerance (FL)	+/-20 ppm @ 25°C +/- 3°C
Equivalent Series Resistor (ESR)	120 kΩ max.
Drive Level	0.1 uW typ ; 1.0 uW max.
Motional Capacitance (C1)	5.0+/-1.0 fF
Shunt Capacitance (Co)	1.3+/-0.3 pF
Load Capacitance (CL)	7 pF
Aging	+/-3.0 ppm /1 st year @25°C
Insulation Resistance	500M Ω min at DC 100V
Marking	Laser marking

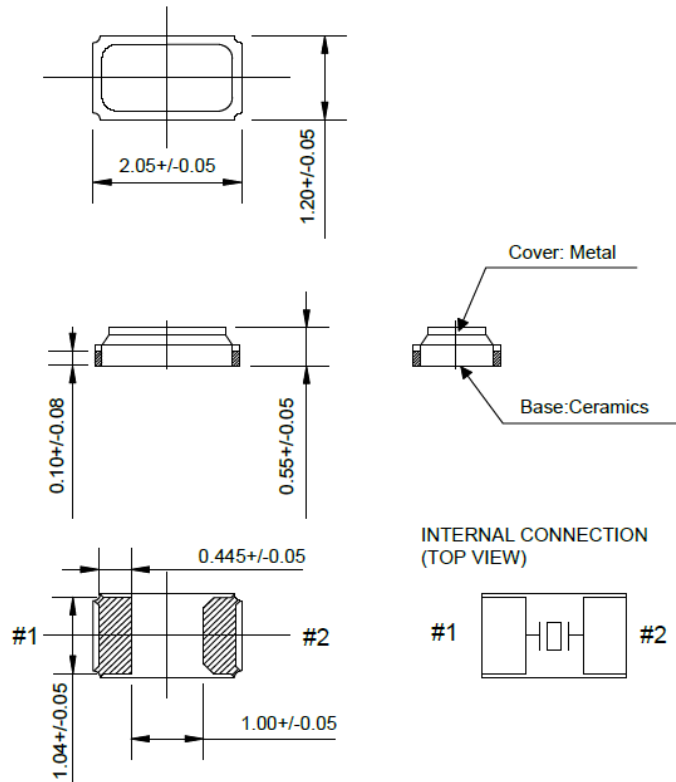


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

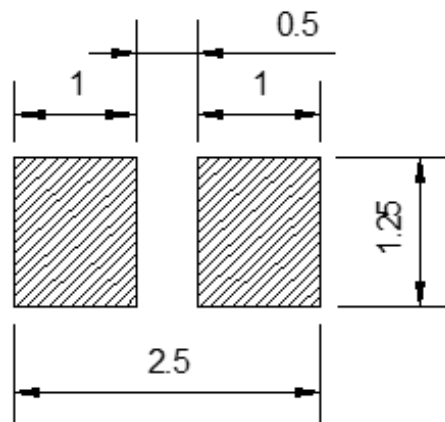
NOTES:

1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. This component was always RoHS compliant from the first date of manufacture.

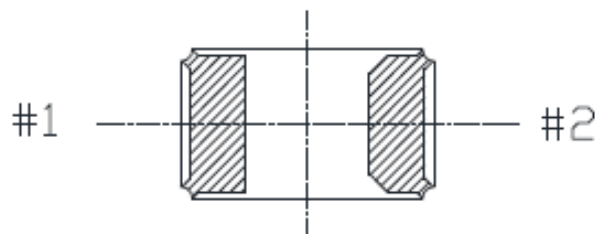
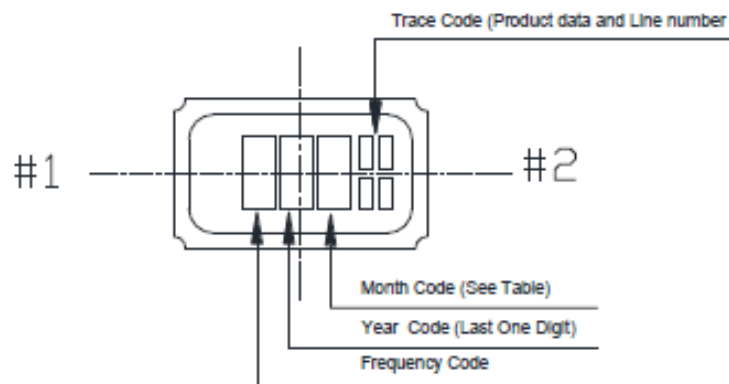
Mechanical Dimensions (mm):



Recommended Land Pattern: (unit: mm)



Marking:



NOTE

1. Month Code

Month	1 Jan.	2 Feb.	3 Mar.	4 Apr.	5 May	6 June	7 July	8 Aug.	9 Sep.	10 Oct.	11 Nov.	12 Dec.
Month Code	1	2	3	4	5	6	7	8	9	X	Y	Z

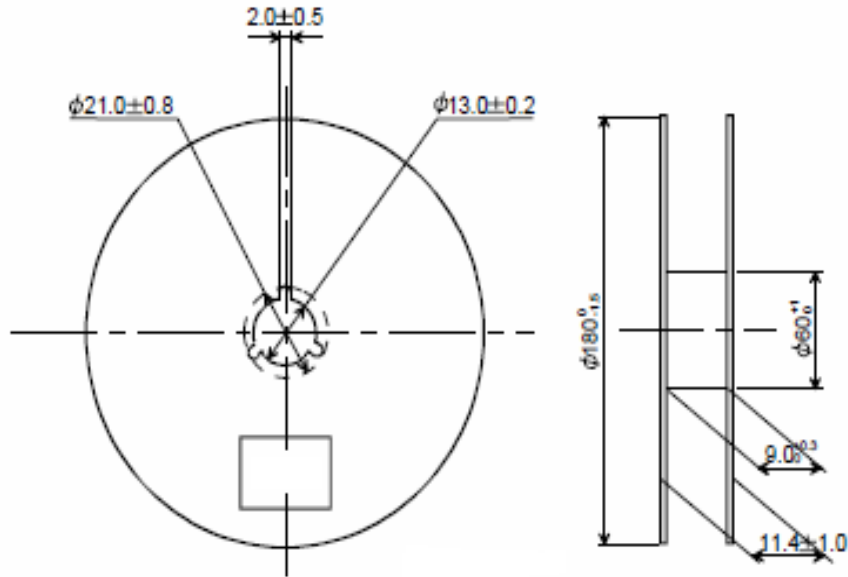
2. Frequency Code

A : 32.768kHz

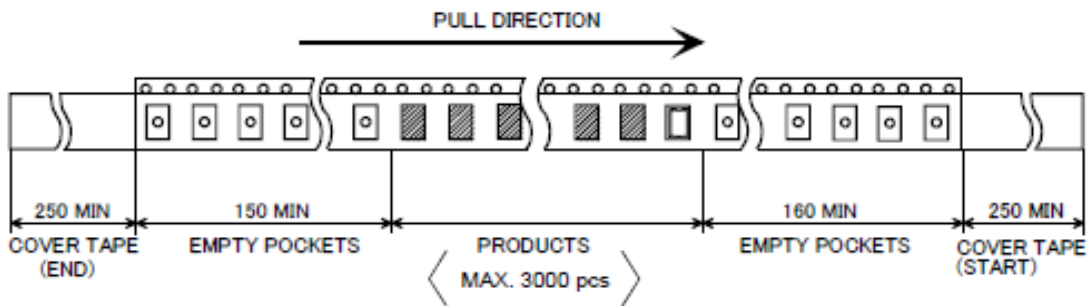
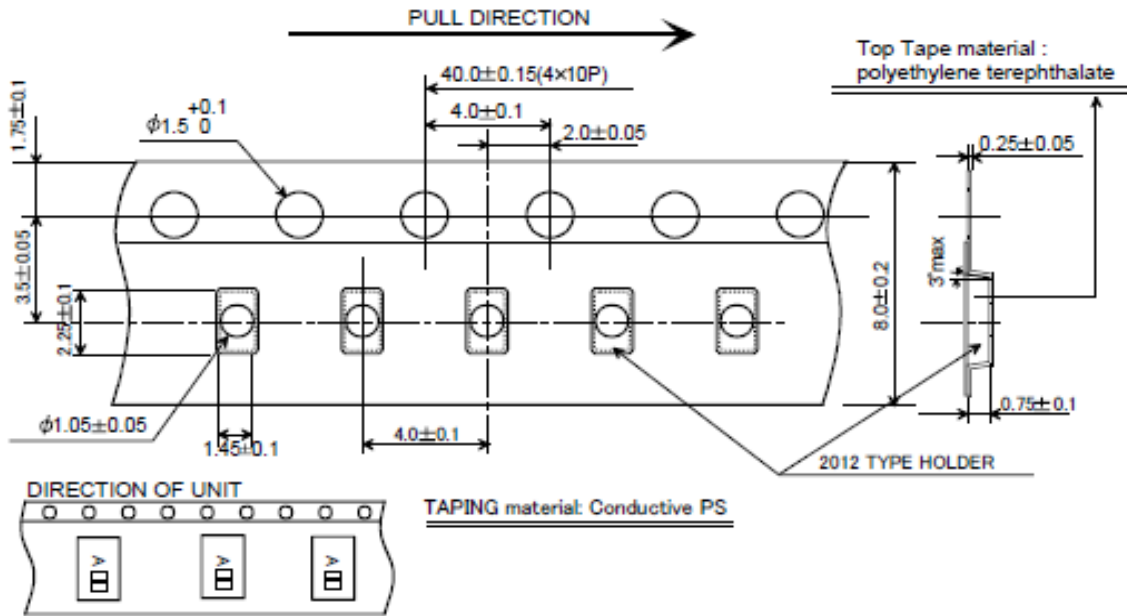
3. Marking Method

Marking Method is Laser Trimming.

Reel Dimensions (mm):

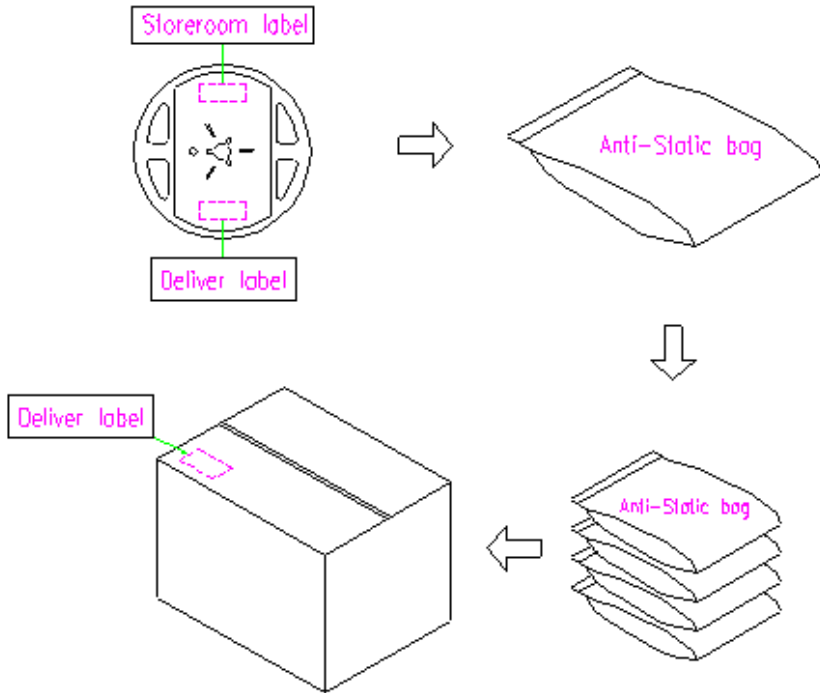


Tape Dimensions (mm):

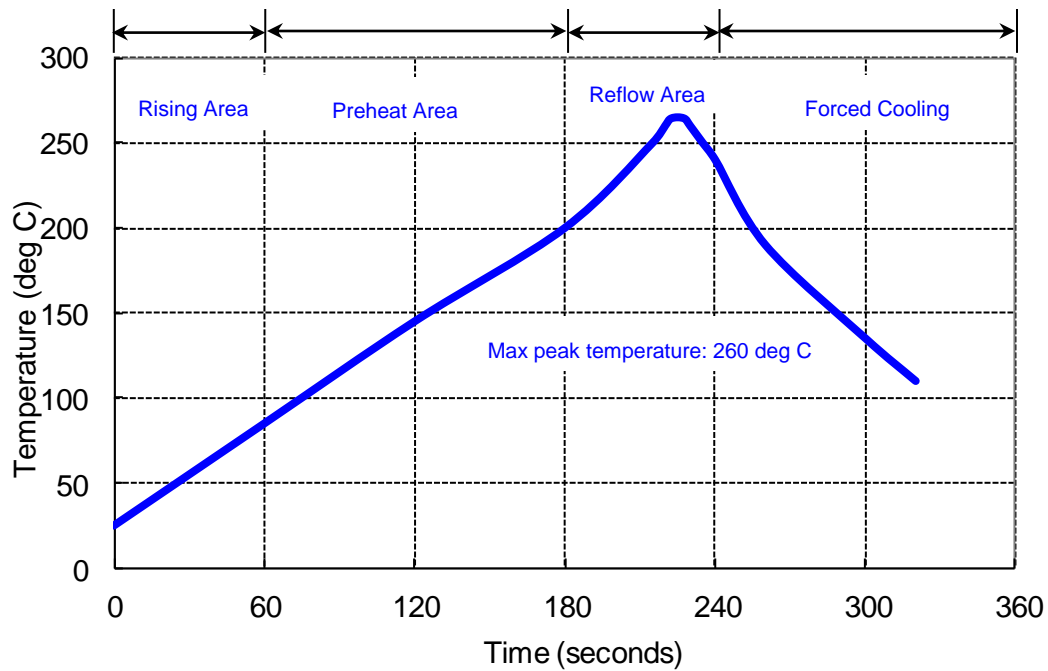


Packing Quantity/Packing:

3000 pcs maximum per reel



Reflow Profile:



Reliability Specifications (AEC-Q200)

Test name	Test process / method	Reference standard
Mechanical characteristics		
resistance to Soldering heat (IR reflow)	Temp./ Duration : 265°C /10sec x2 times Total time : 4min.(IR-reflow)	EIAJED-4701 -300(301)M(II)
Vibration	Total peak amplitude : 1.5mm Vibration frequency : 10 to 2000 Hz Sweep period : 20 minute Vibration directions : 3 mutually perpendicular	MIL-STD 202G method 204
Mechanical Shock	directions : 3 impacts per axis Acceleration : 6000g's, +20/-0 % Duration : 0.3 ms (total 18 shocks) Waveform : Half-sine	MIL-STD 202G method 213
Solderability	Solder Temperature:265±5°C Duration time: 5±0.5 seconds.	J-STD-002
Environmental characteristics		
Thermal Shock	Heat cycle conditions -55 °C (30min) ↔ 125 °C (30min) * ycle time : 1000 times	MIL-STD 883G method 1010.8
Humidity test	Temperature : 85 ± 2 °C Relative humidity : 85% Duration : 1000 hours	MIL-STD 202G method 103
Dry heat (Aging test)	Temperature : 125 ± °C Duration : 1000 hours	MIL-STD 202G method 108A
Cold resistance (Low Temp Storage)	Temperature : -40 ± 3 °C Duration : 1000 hours	IEC 60068-2-1