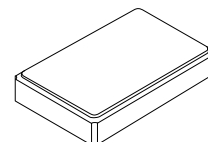


XTL1045

**8.00000 MHz
Crystal Unit**



SM5032-4 Case

Features:

- Surface Mount Hermetic Package
- Excellent Reliability Performance
- Good Frequency Perturbation and Stability over temperature
- Ultra Miniature Package
- Moisture Sensitivity Level (MSL) : Level-1

Description and Applications:

Surface mount 5.0mmx3.2mm crystal unit for use in wireless communications devices, especially for a need of ultra miniature package for mobility.

Electrical Specifications:

XTL1045	Specification
Nominal Frequency	8.000000 MHz
Mode of Oscillation	Fundamental
Storage Temperature Range	-40°C to +125°C
Operating Temperature Range	-10°C to +85°C
Frequency Stability over Operating Temperature Range	+/-30 ppm (referred to the value at 25°C)
Frequency Make Tolerance (FL)	+/-50 ppm @ 25°C +/- 3°C
Equivalent Series Resistance (ESR)	150 Ω max.
Nominal Drive Level	10uW typical and 200uW max
Shunt Capacitance (Co)	3.0 pF max
Load Capacitance (CL)	16 pF
Aging	+/-2ppm/year
Insulation Resistance	500 M Ω min./DC 100V
Marking	Laser marking
Unit Weight	0.037+/-0.005g

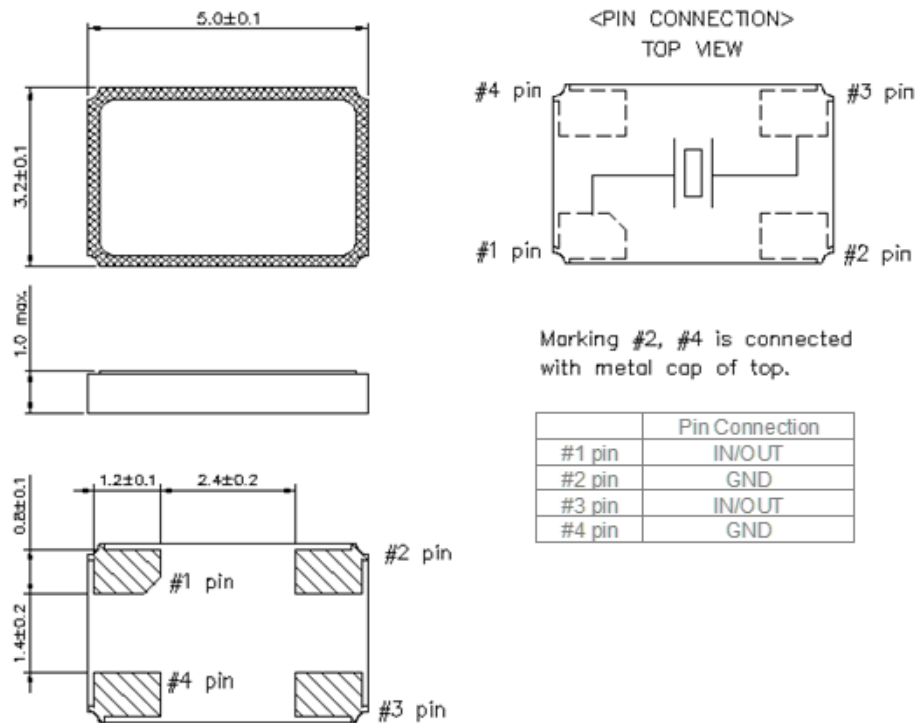


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

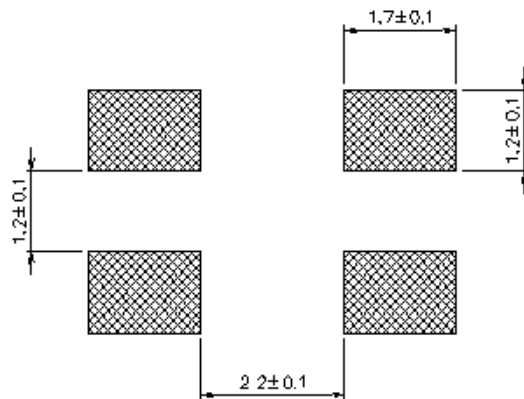
NOTES:

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

Mechanical Dimensions (mm):

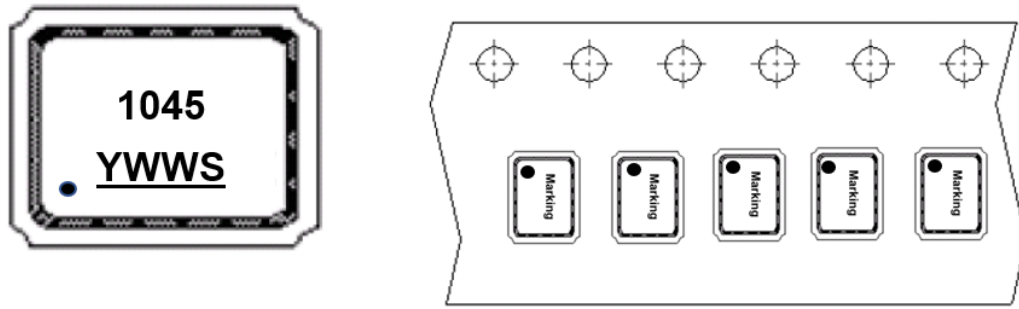


Recommended Land Pattern: (unit: mm)



Marking:

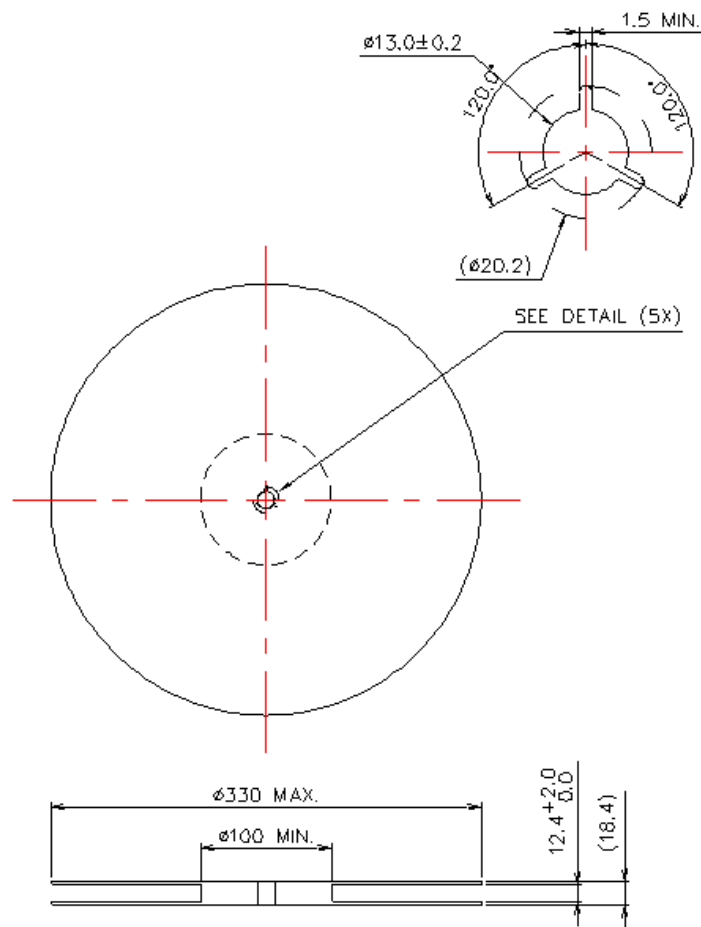
Y = Year
WW = Week
S = Shift



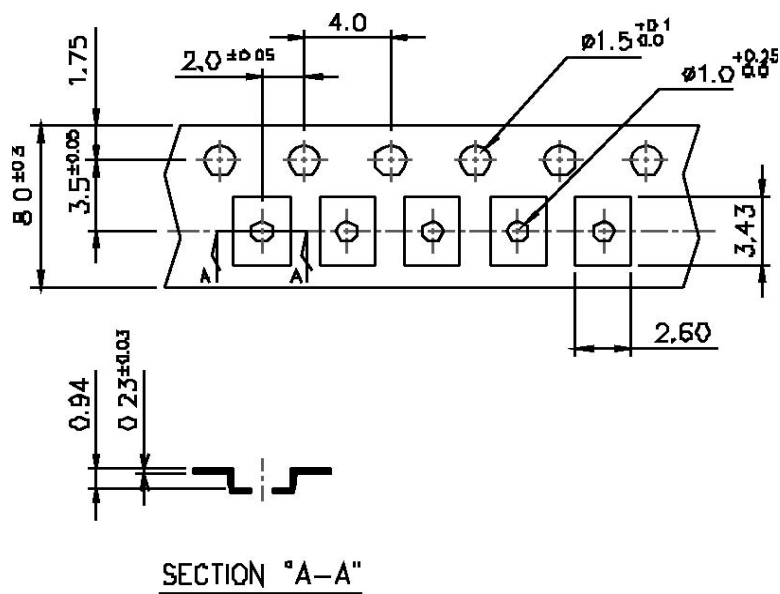
Reel Dimensions:

Reel Count:
7" = 1000
13" = 3000

Tape and Reel Standard per ANSI/EIA-481



Tape Dimensions:

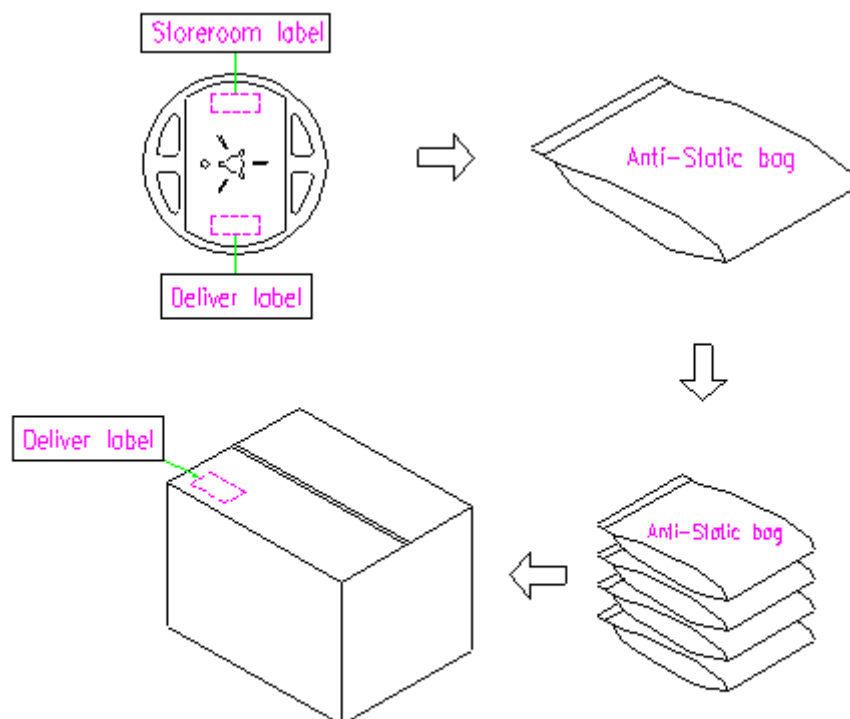


Notes:

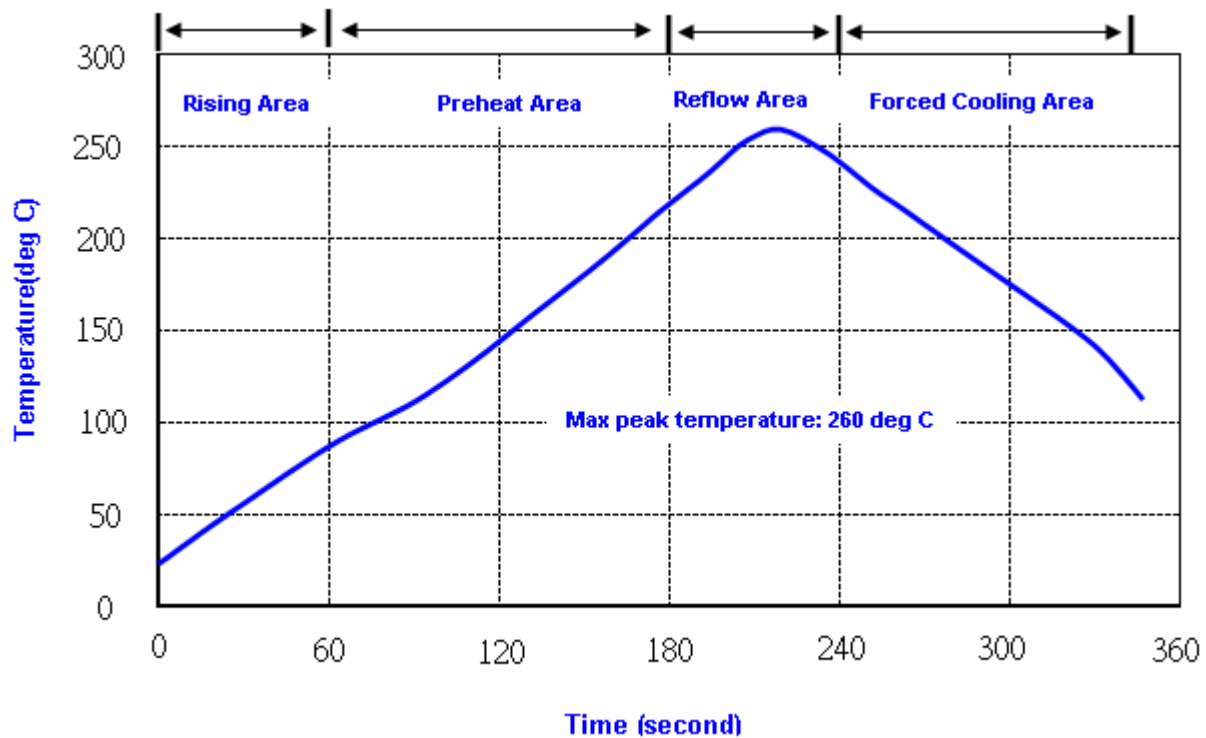
1. Unless otherwise specified, tolerance on dime
2. Material is black conductive polystyrene
3. 10 pitch cumulative tolerance is ± 0.2 mm

Packing Quantity/Packing:

3K pcs maximum per reel



Reflow Profile:



Note: 1. Max peak temperature: 260 ± 5 deg C; Time: 10 ± 2 sec
2. Temperature: 217 ± 5 deg C; Time: 90~100 sec

Reliability Specifications

Test name	Test process / method	Reference standard
Mechanical characteristics		
resistance to Soldering heat (IR reflow)	Temp./ Duration : 265°C /10sec ×2 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 Duration : 2 hr / direc.	MIL-STD 202G method 204
Mechanical Shock	directions : 3 impacts per axis Acceleration : 3000g'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 -40 °C (30min) ↔ 85 °C (30min) * cycle time : 10 times	MIL-STD 883G method 1010.8
Humidity test	Temperature : 85 ± 2 °C Relative humidity : 85% Duration : 96 hours	MIL-STD 202G method 103
Dry heat (Aging test)	Temperature : 125 ± 2 °C Duration : 168 hours	MIL-STD 202G method 108A
Cold resistance (Low Temp Storage)	Temperature : -40 ± 2 °C Duration : 96 hours	IEC 60068-2-1