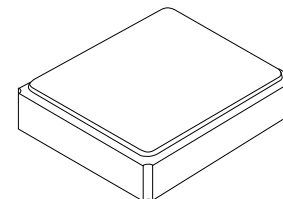


XTL1042

**27.0000 MHz
Crystal Unit**



SM3225-4 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:

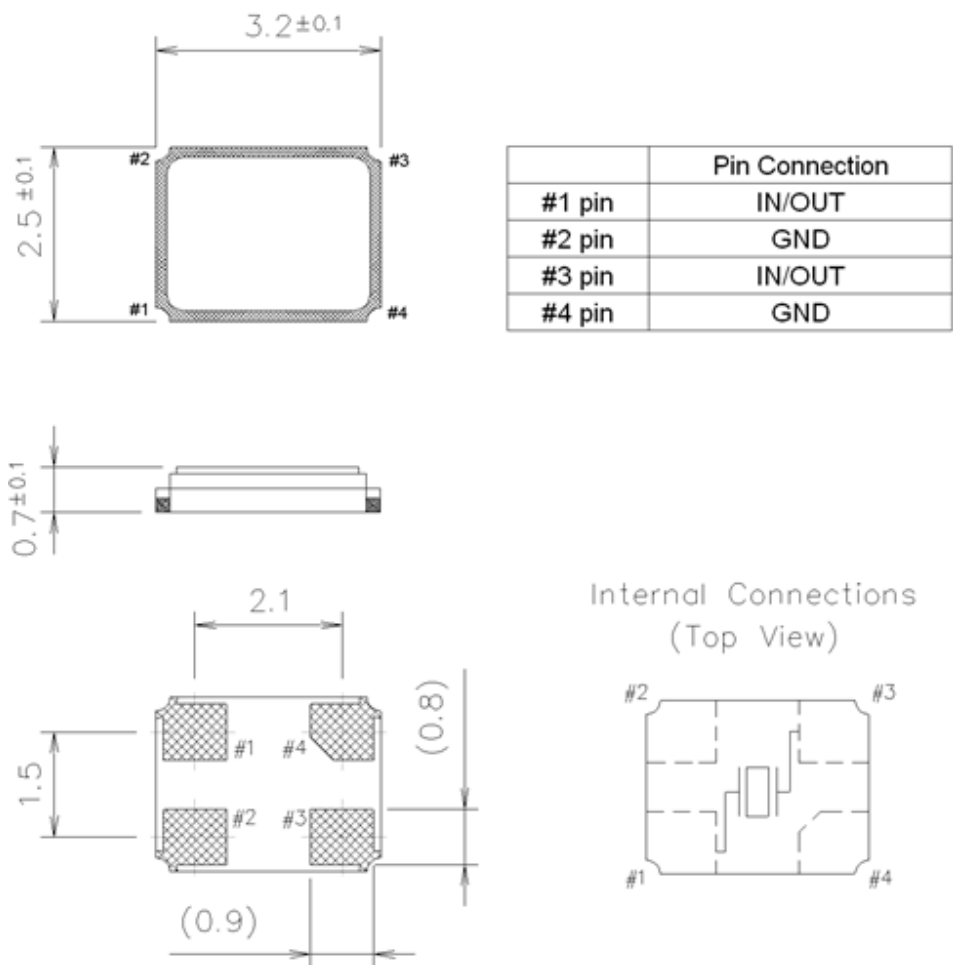
Surface mount 3.2mmx2.5mm crystal unit for customer for use in wireless communications devices, especially for a need of ultra miniature package for mobility.

Electrical Specifications:

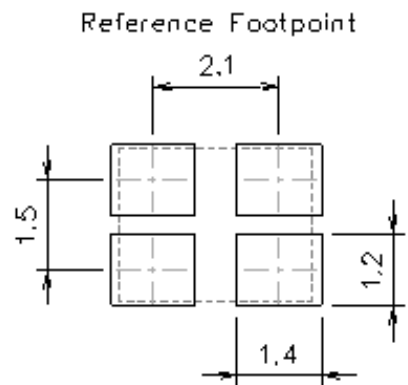
XTL1042	Specification
Nominal Frequency	27.000000 MHz
Mode of Oscillation	Fundamental
Storage Temperature Range	-55°C to +125°C
Operating Temperature Range	-10°C to +85°C
Frequency Stability over Operating Temperature	+/- 30 ppm (referred to the value at 25°C)
Frequency Make Tolerance (FL)	+/- 50 ppm @ 25°C +/- 3°C
Equivalent Series Resistance (ESR)	70 Ω max.
Nominal Drive Level	10uW typical and 100uW max
Shunt Capacitance (Co)	5.0 pF max
Load Capacitance (CL)	16 pF
Aging	+/-2 ppm/year
Insulation Resistance	500 M Ω min./DC 100V
Marking	Laser Marking
Unit Weight	0.017+/-0.005 g

Mechanical Dimensions (mm):

Base

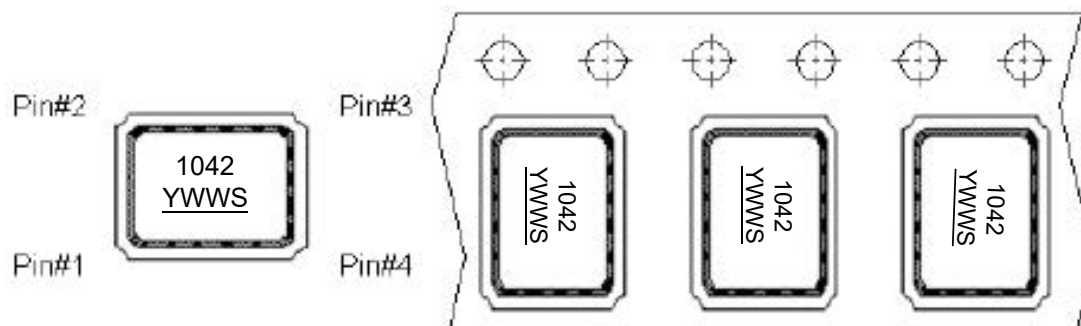


Recommended Land Pattern: (unit: mm)



Marking

Y = Year, WW = Week, S = Shift

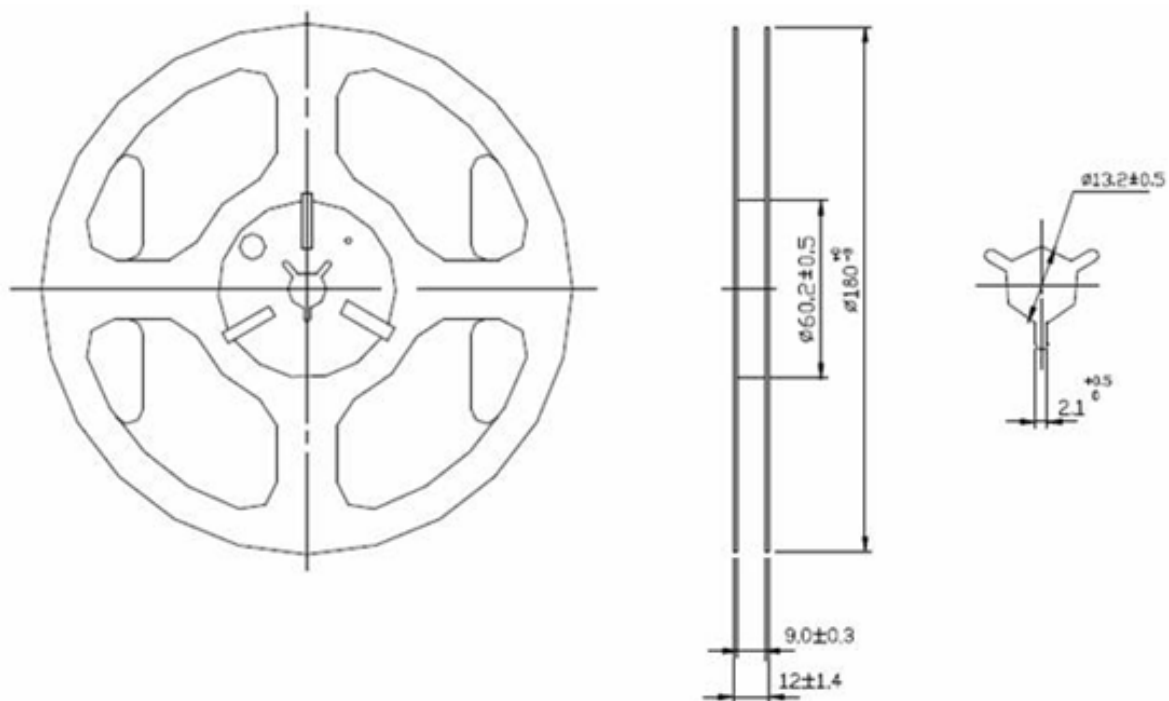


Reel Dimensions (mm)

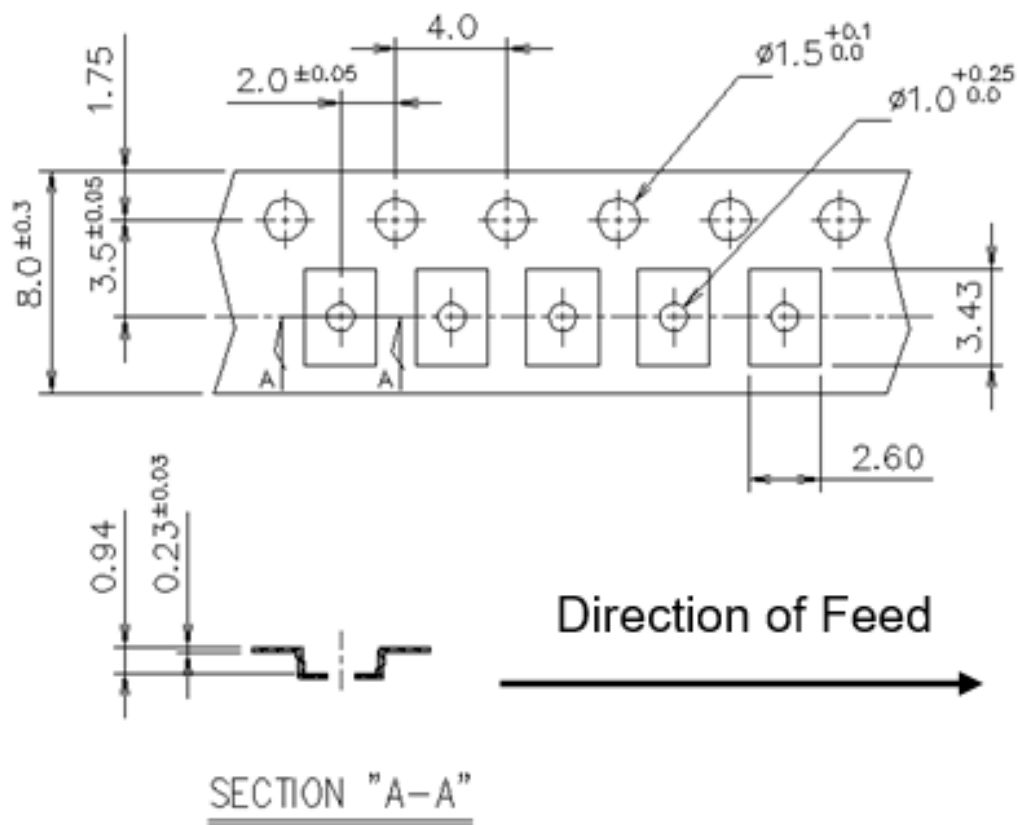
Reel Count:

7" = 1000

13" = 3000



Tape Dimensions (mm):

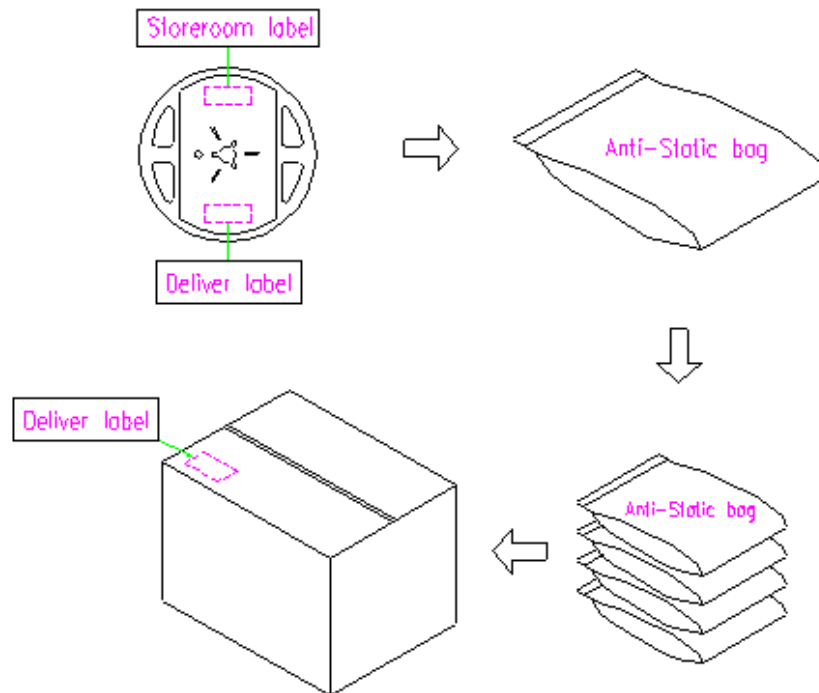


[NOTE]

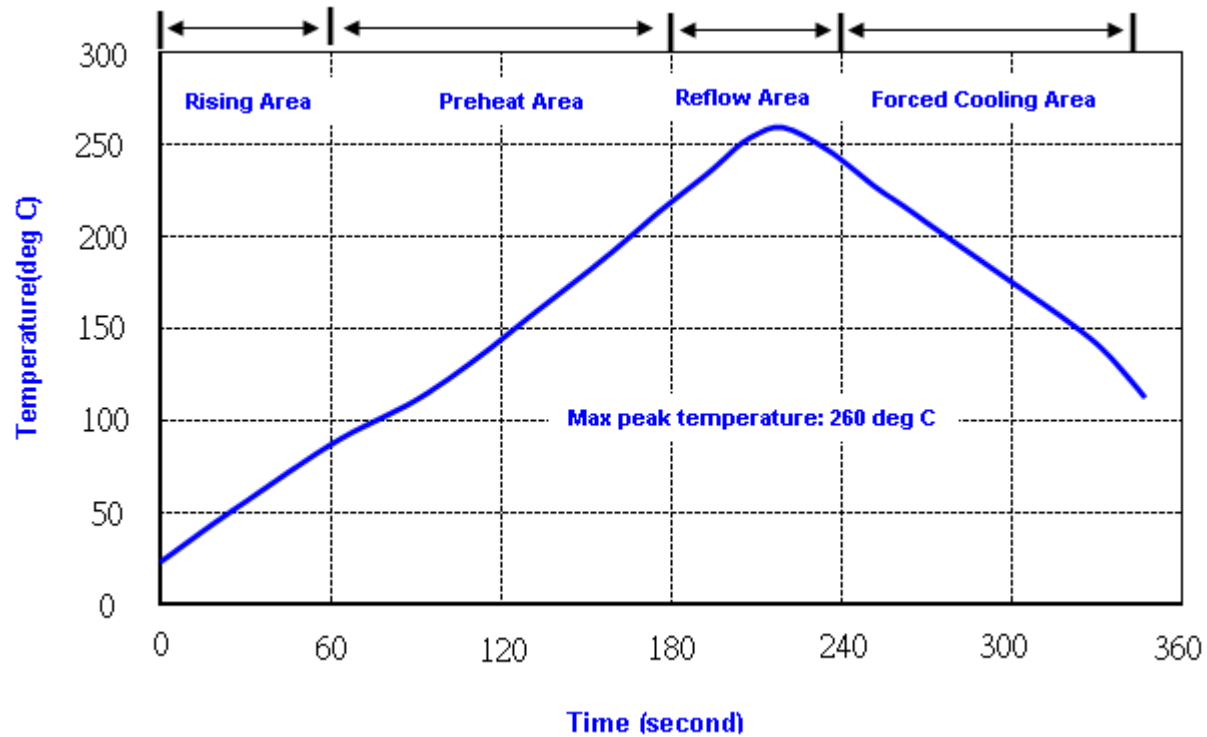
- 1 UNIT : mm.
- 2 UNLESS OTHERWISE SPECIFIED TOLERANCE ON DIM. ± 0.1 mm.
- 3 MATERIAL : CONDUCTIVE POLYSTYRENE.
- 4 COLOR : BLACK.
- 5 10 PITCHES CUMULATIVE TOLERANCE ± 0.2 mm.

Packing Quantity/Packing:

3K pcs maximum per reel



Reflow Profile:



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

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