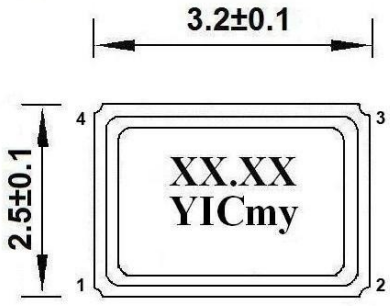
Quartz Crystal Unit

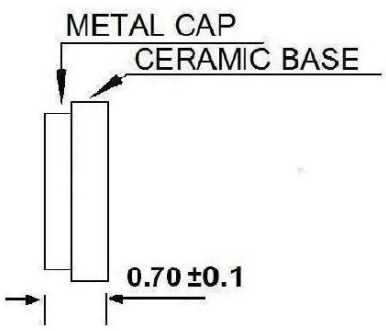
1. Specifications

1.Part No.	8M10PB/XT324-10/80
2.Nominal Frequency	8.000000 MHz
3.Frequency Tolerance at 25ºC	± 10 PPM
4.Frequency Stability (Ref. to 25ºC)	± 80 PPM (-40ºC ~ +125ºC)
5.Mode of Oscillation	■Fund. □3rd □5th overtone
6.Operating Temperature Range	-40ºC ~ +125ºC
7.Storage Temperature Range	-55ºC ~ +125ºC
8.Load Capacitance (C_L)	10 PF
9.Shunt Capacitance (C_0)	3 PF (Max)
10.Equivalent Series Resistance (ESR)	300 Ω (Max)
11.Drive Level	10 μW (100 uW Max)
12.Aging (at 25ºC)	± 3 PPM / year (Max)

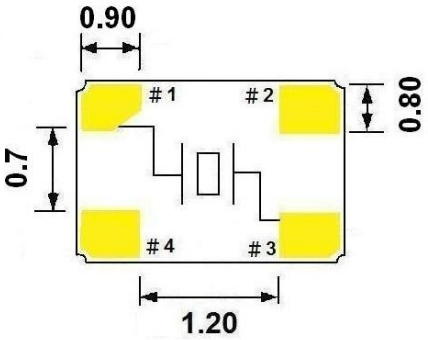
2. Dimensions

★Top View

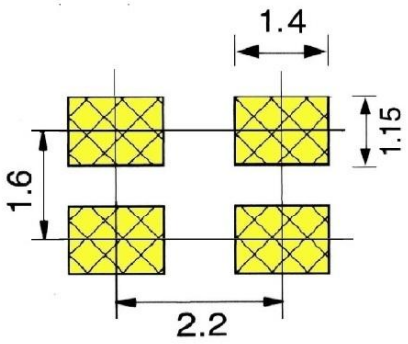




★Bottom View



★Recommended Land Pattern



UNIT:mm

3. Marking

XX.XX : Frequency in MHz

YIC : Yuechung International Corp.

m : Month

☐A:JAN ☐B:FEB ☐C:MAR ☐D:APR ☐E:MAY ☐F:JUN

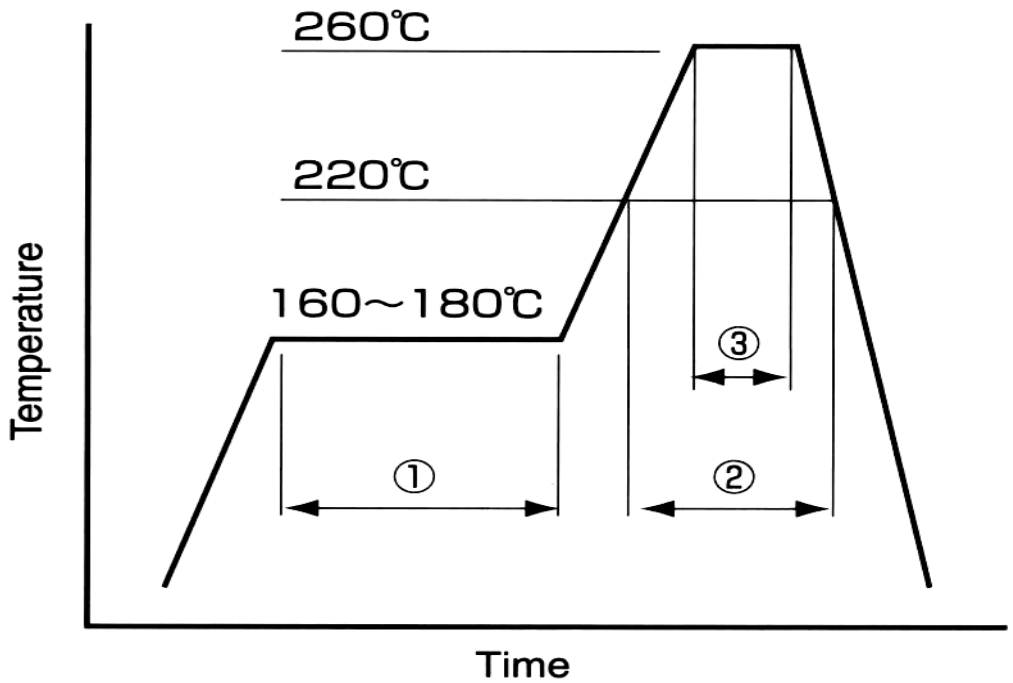
☐G:JUL ☐H:AUG ☐I:SEP ☐J:OCT ☐K:NOV ☐L:DEC

y : Year

☐9:2019 ☐0:2020 ☐1:2021 ☐2:2022 ☐3:2023

☐4:2024 ☐5:2025 ☐6:2026 ☐7:2027 ☐8:2028

4. Reflow Profile

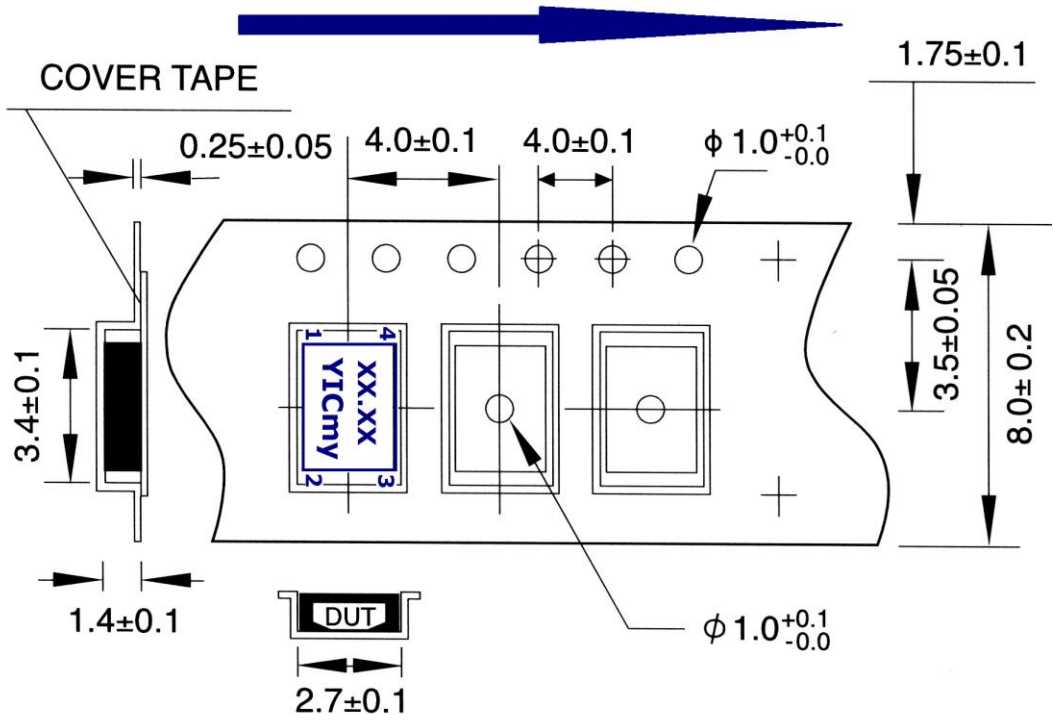


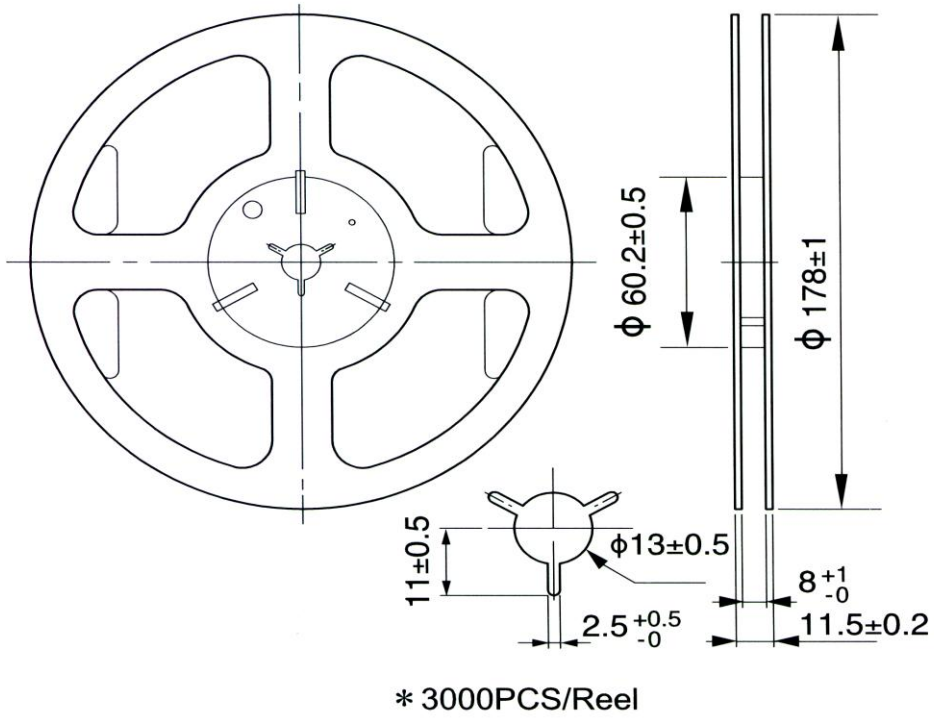
1.Preheat : 160 ~ 180℃ 120sec
2.Primary heat: 220℃ 60sec
3.Peak : 260℃ 10sec max.

5.Reliability Specifications

Item	Condition	Criteria
1.Shock	Dropping height 75cm,3 times on a hard wooden board	Frequency Stability △F/F：±10 PPM Max.
2.Vibration	1.Frequency：10 ~ 2000Hz 2.Amplitude：1.5 mm / 20g 3.Directions：X,Y,Z, each：2 Hrs	Frequency Stability △F/F：±10 PPM Max.
3.Solder-ability Test	Dipping the terminal pads in a 245 ± 5°C solder bath for 5 sec.	More that 95% surface of the terminal pads shall be covered with a uniform solder coating.
4.Helium Leak Test	Take measurements with a Helium Leakage detector	Leakage Rate $\leqq 1x10^{-3}$ Pa cm^3/s
5.Mechanical Shock	Half sine wave,1000G 3 Time for all directions	△F/F：±10 PPM Max.
6.Low Temperature Test	1.Temperature：-40 ± 3°C 2.Length of test：100hrs.	Frequency Stability △F/F：±20 PPM Max.
7.High Temperature Test	1.Temperature：85 ± 3°C 2.Length of test：100hrs.	Frequency Stability △F/F：±20 PPM Max.
8.Resistance to Soldering Heat	Dipping in a 260 ± 5°C solder bath for 10 sec.	Frequency Stability △F/F：±20 PPM Max.
9.High Temperature & R.H. Test	1.Temperature：85 ± 3°C 2.Relative Humidity：85% 3.Length of test：168 hrs.	Frequency Stability △F/F：±20 PPM Max.
10.Temperature Cycle	The unit shall be subjected to 100 successive change of temperature cycles. Each cycle as follow： Temperature Duration 1. -40 ± 3°C 30 minutes 2. 25 ± 3°C 2~3 minutes 3. 85 ± 3°C 30 minutes 4. 25 ± 3°C 2~3 minutes	Frequency Stability △F/F：±20 PPM Max.

6. Tape & Reel (unit:mm)





* 3000PCS/Reel