

金華盈企業公司

Abundance Enterprise Co.

Room 602-603, Java Commercial Centre, 128 Java Road, North Point, Hong Kong

Tel: (852) 2856 0000 (Series), Fax: (852) 2561 2161

<http://www.aeccrystal.com>

Email: henkie@aeccrystal.com, sales@aeccrystal.com, info@aeccrystal.com

CRYSTAL UNIT SPECIFICATION

AEC PART NUMBER / SPEC. NO: AT206-24.576M-30-20P

DATE: 22nd December, 2004

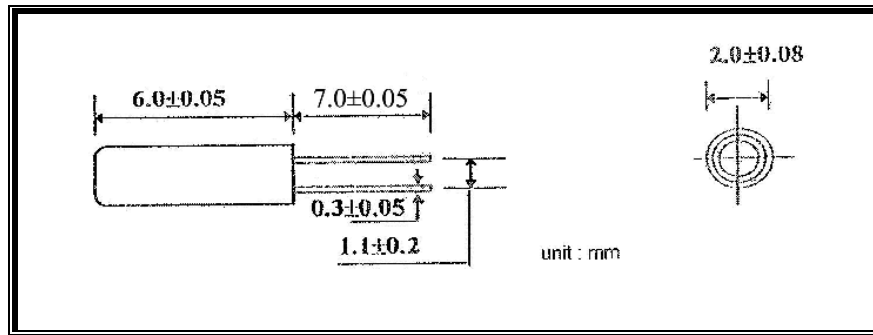
1. GENERAL PROVISION

- 1-1 Production Name: Tuning Fork Crystal unit
- 1-2 Holder Type: AT- 206

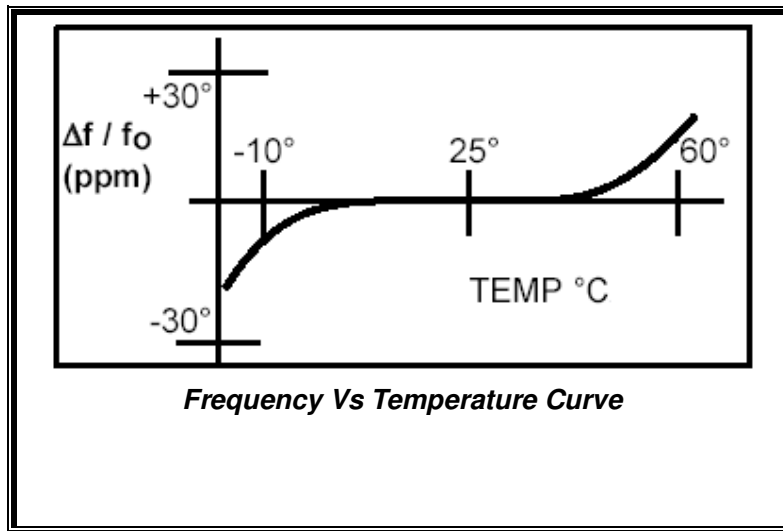
2. ELECTRICAL DATA

- 2-1 Mode of Vibration : Fundamental
- 2-2 Nominal Frequency (F) : 24.576MHz
- 2-3 Load Capacitance (CL) : 20pF Typical
- 2-4 Frequency Tolerance at 25°C : $\pm \underline{30}$ ppm
- 2-5 Series Resistance (Rr) : $\underline{60}$ K Ω max.
- 2-6 Quality Factor (Q) : 40K min.
- 2-7 Turnover Temperature (To) : 25°C \pm 5°C
- 2-8 Temperature Coefficient (K) : -0.035ppm /°C² Typical
- 2-9 Operation Temperature : -20°C ~+70°C
- 2-10 Storage Temp. Range : -20°C ~+70°C
- 2-11 Shunt Capacitance (Co) : 5pF Typical
- 2-12 Aging 1st Year ($\Delta f/f$) : \pm 5ppm max.
- 2-13 Shock Resistance : \pm 5ppm max.
- 2-14 Capacitance Ratio (Co/C0) : 520 Typical
- 2-15 Insulation Resistance : 500M Ω at DC 100V \pm 15V
- 2-16 Drive Level : 100 μ W

3. DIMENSION



4. FREQUENCY CHARACTERISTIC



5. TESTING EQUIPMENTS

- 5-1 Impedance Meter TH2681
- 5-2 Impedance Meter CIM-200K
- 5-3 High Resolution Frequency Tester SP-100A

6. QUALITY TESTING STANDARD

- 6-1 All products are in hundred percent tested and selected in the 1st stage based on the specification. For those products that pass the 1st test can go to 2nd stage inspection.
- 6-2 Random checking will then be applied to the tested products according to the National Standard GB2828-87 Random Policy and IL=III AQL-0.065 Testing Standard.

7. PRECAUTION TO HANDLE CRYSTAL QUARTZ RESONATOR

7-1 When impacted or dropped by mistakes

When crystal quartz resonator is impacted by external heavy shock or dropped to floor by mistakes, be sure to confirm its performance is bad or good before using it.

7-2 Lead soldering, leads soldering should be done within 10 sec with soldertip temperature no more than 270°C .

7-3 When doing solder dip mounting, crystal quartz resonator should be upright on the circuit board, if the crystal quartz resonator is placed sideways the circuit board, tale care not to allow heat transmitted across the whole crystal quartz resonator.