

深圳市晶科鑫实业有限公司

样品承认书

| | |
|-----------|---|
| 客户代码: | |
| 物料名称: | 无源晶振 |
| 规格型号: | 1.6*1.0 32.768kHz 12.5PF ±20PPM -40~85℃ |
| P N/ SJK: | 7KC32768F12UC |
| 环保属性: | <input checked="" type="checkbox"/> RoHS <input checked="" type="checkbox"/> REACH <input checked="" type="checkbox"/> HF <input type="checkbox"/> PAHS <input type="checkbox"/> 其它 |
| 版 次: | A2 2021-5-10 最小包装: 5000pcs/real |
| 湿敏等级: | 一级 |

| 承 认 签 章 | | | | | |
|-------------------|-----|-----|--|-----|-----|
| 供 应 商 承 认 | | | () 公 司 承 认 | | |
| 制 定 | 审 核 | 核 准 | 工 程 师 | 审 核 | 批 准 |
| 贺丹斌 | 李相同 | 刘惠光 | | | |
| SJK 支持 | | | 盖 章 签 署 | | |
| F A E _ E M A I L | | | 日 期 | | |
| 日 期 | | | 批 示 : <input type="checkbox"/> 接受 <input type="checkbox"/> 有条件接受 | | |
| 备注: | | | | | |

FEATURE

- Wide Frequency range
- Small size
- Tape & Reel

APPLICATIONS

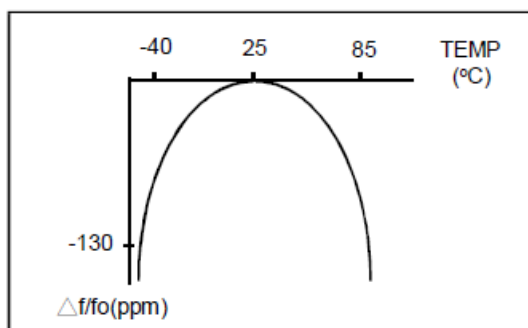
- Microprocessor Systems
- Consumer Electronics

ELECTRICAL SPECIFICATIONS (电气参数)

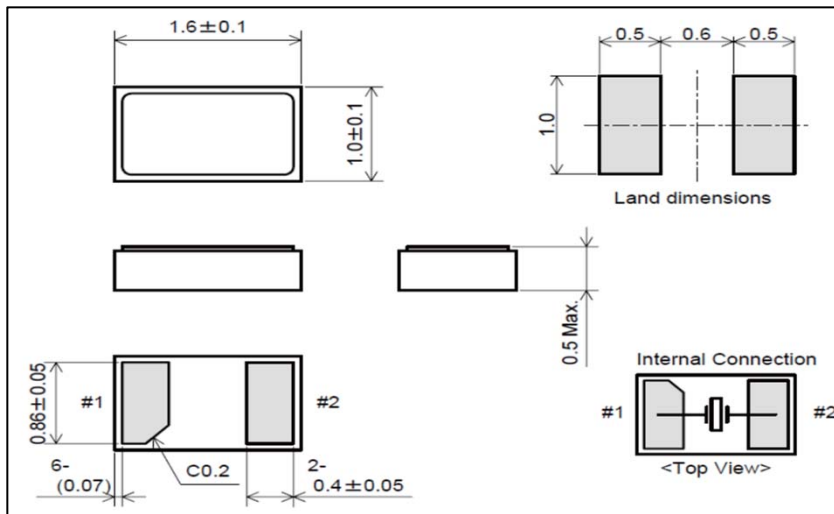
| | |
|-----------------------------------|------------------------------|
| Frequency | 32.768KHz |
| Frequency Tolerance (at 25°C) | ±20ppm |
| Load Capacitance(CL) | 12.5PF |
| Equivalent Series Resistance(ESR) | 90KΩ Max |
| Turnover Temperature | 25 ± 5°C |
| Frequency Temperature Curve | -0.04ppm/°C ² MAX |
| Operating Temperature Range | -40 °C to +85 °C |
| Storage Temperature Range | -55 °C to +125 °C |
| Shunt Capacitance (C0) | 1.3pF Typ |
| Dynamic Capacitance (C1) | 6.2fF Typ |
| Insulation Resistance | 0.5μW Max |
| Insulation Resistance | 500MΩ MIN at DC100V±15V |
| Aging @25°C 1st year (Max) | ±3ppm/year max |

REMARK: SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE. PLEASE CONFIRM WITH OUR SALES ENGINEER.

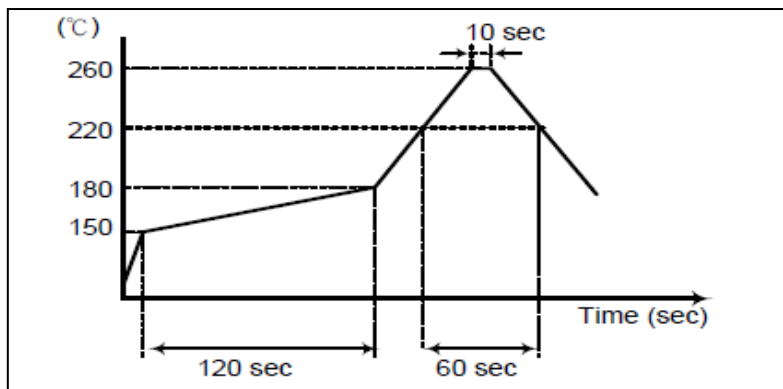
Frequency VS Temperature Curve



Dimension (尺寸) (Unit: mm)



REFLOW CONDITION (回流焊)

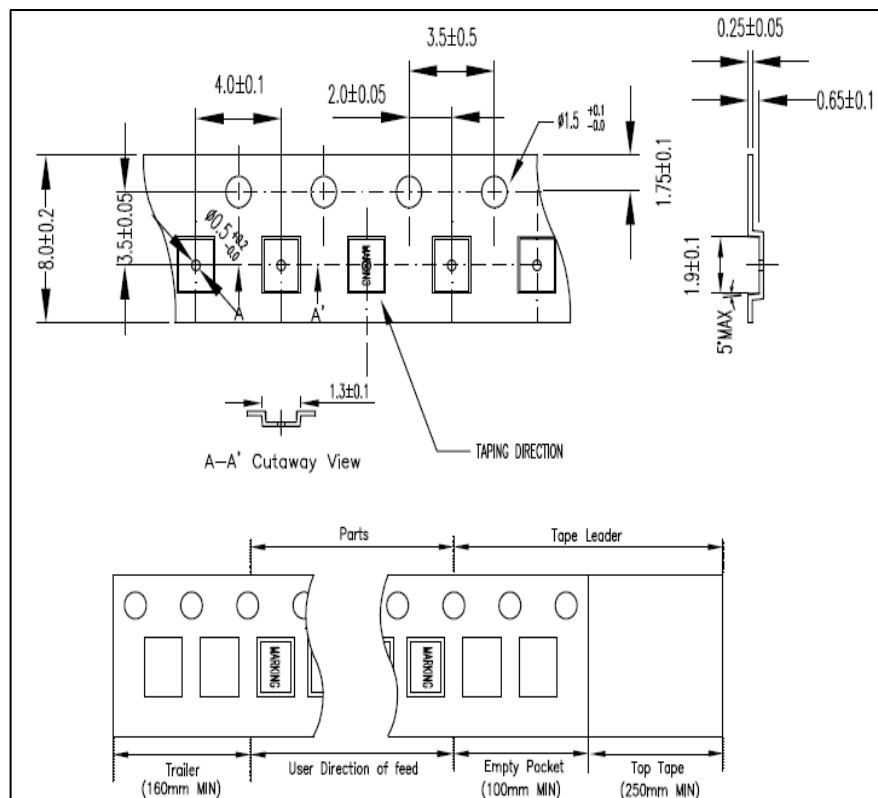


The reflow temperature profile may vary depending on the product model, specifications and frequency range. Refer to the individual product specifications for details

Note:

- 1 Tuning fork products oscillate at frequency bands that are close to the washing frequency of ultrasonic cleaning machine, which may cause resonance deteriorating the electrical characteristics in devices, and even damaging the overall structure of devices. Therefore, using ultrasonic cleaning machine to clean tuning fork devices should be avoided. If the use of this method to clean tuning fork devices is required, it's suggested to check the functionality of devices before and after the cleaning process.
- 2 Avoid mounting and processing by Ultrasonic welding this method has a possibility of an excessive vibration spreading inside the crystal products and becoming the cause of characteristic deterioration and not oscillating.
- 3 Manual soldering heat resistance Pressing a soldering iron of 400°C on the terminal electrode for four seconds (twice).

CARRIER TYPE (载带)



RELIABILITY TEST SPECIFICATIONS (可靠性测试标准)

| Test item | Equipment | Condition | Specification |
|--|--|---|--------------------------------|
| 1.SOLDERABILITY TEST | SJK-REL001、RC-328A | 1.Solderability:235±5℃, 5±0.5S 2.Heat resistance:260±5℃,10±1S restoration of 1 hour | MIL-STD-883E Method 2003.7 |
| 2. HERMETICITY TEST | HELIOT-306S | FC-84 FLUOROCARBON,BUBBLE MACHINE | MIL-STD-883E Method 1014.10 |
| 3. VIBRATION TEST | HG-V4、S&A 250B | Enable Crystal(10g) from 10-55-10Hz,X、Y、Z horizontal,1 Minute vibration/time, 1time/ 2 hours. | MIL-STD-883E Method 2007.3 |
| 4. MECHANICAL SHOCK | HPC-200、S&A 250B | Device are shocked to half sine wave (1000G) three mutually perpendicular axes each 3 times . 1m sec.duration time. | JIS C60068-2-6 |
| 5. DROP TEST | HARD BOARD.S&A250B | 150CM height,fall freely onto concrete floor 3 times. | JIS C6701 |
| 6. HIGH&LOW TEMP STORAGE TEST(Static test) | H-PTH-80CK & HM101-3ABN, S&A 350B/250B | High temperature: 100℃±3℃,100±12hrs; Low temperature:-40℃±3℃,1000±12hrs | JIS C600682-2 JIS C600682-1 |
| 7. TEMP & HUM CYCLING TEST | H-PTH-80CK CHAMBE, S&A 350B/250B | Temperature:-10℃±2℃~65℃±2℃,Humidity:93±3%,1 cycle need 24 hrs. 5cycles. | MIL-STD-883E Method 1005.8 |
| 8. HIGH TEM. & HUM. STORAGE TEST | H-PTH-80CK CHAMBE, S&A350B/250B | Temperature:40℃±3, RH:90~95%,1000 hrs | JIS C600682-3 |
| 9.AGING TEST | H-PTH-80CK CHAMBE, S&A350B/250 | Temperature:40℃±2, Humidity:85+3,-2%,Store 96 hrs | JIS C5023 |