
MEC

PRODUCT SPECIFICATION

QUARTZ CRYSTAL OSCILLATOR

FREQUENCY COMPONENTS

PRODUCT TYPE : MUËHÓËÎT

NOMINAL FREQUENCY : ÎÎ MHZ

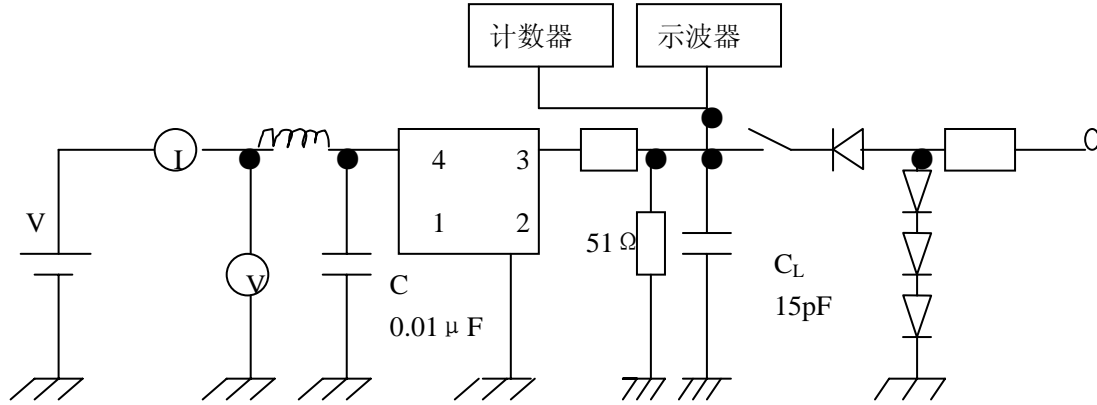
PART NO : TUËHÓËÎT

REVISION : C *J +

3 Parameters of the Product

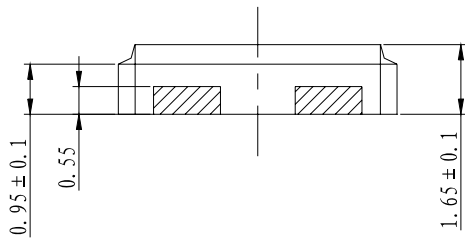
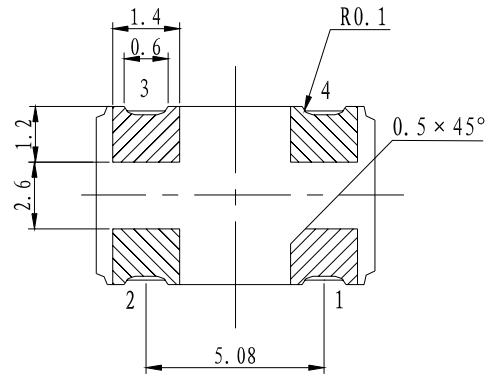
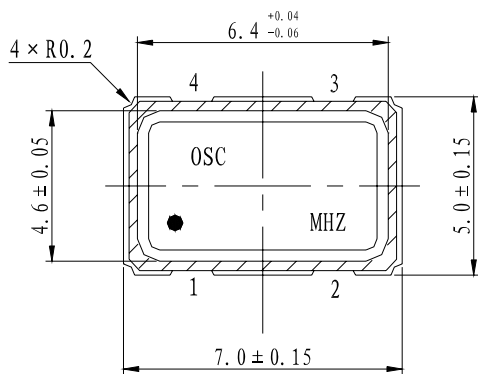
Parameter 参数	MIN	TYPICAL	MAX	Unit
Holding 封装型号	SMD7050 OSC			
Frequency 中心频率		66.000		MHZ
Operation Voltage 工作电压	+3.0	+3.3	+3.6	V
TRI-STATE 三态	Yes			
Frequency Tolerance @25±2 °C调整频差	-50		+50	PPM
Operation temperature range 工作温度范围	-40		+85	°C
store temperature range 存储温度范围	-40		+85	°C
Input Current (on loud) 工作输入电流			35	mA
Start time for oscillator 起振时间			6	ms
Output Load 输出负载	10 TTL / 15PF HCMOS			
Duty Cycle 占空比	45%	50%	55%	
Rise Time (Tr) 上升时间			10	ns
Fall Time (Tf) 下降时间			10	ns
Output Low Voltage Level 输出低电平			0.4V (TTL) 10%VCC (HCMOS)	
Output High Voltage Level 输出高电平	2.4V (TTL) 90%VCC (HCMOS)			

Test Circuit 测试电路图



Outline Drawing and Pad Function 外观尺寸图和焊盘功能

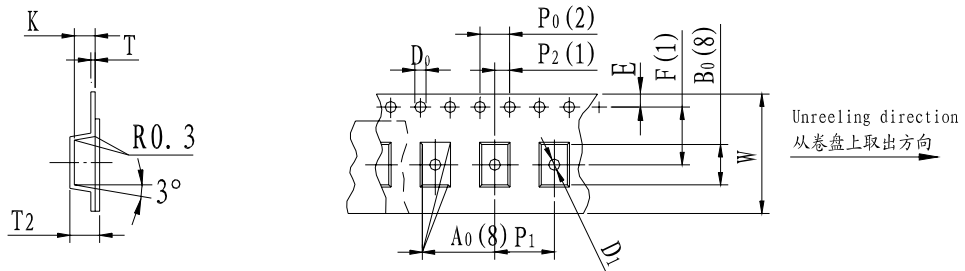
UNIT: mm



Pin No	Descriptions	Symbol
1	Out state control	INH _B
2	Ground	V _{SS}
3	Output	Q _{OUT}
4	Power supply	V _{DD}

INH _B	"H" or OPEN	"L"(tri-state)
Q _{OUT}	Oscillating	High Impedance

4、Taping 编带

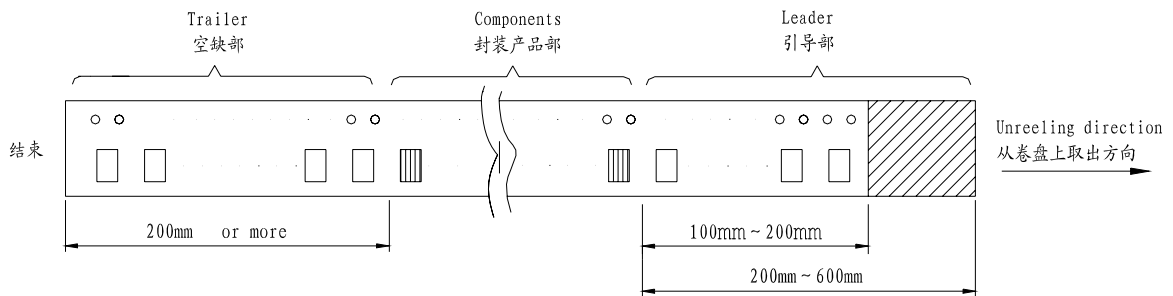


Unit 单位: mm

A_0	B_0	W	F	E	P_1	P_2	P_0	D_0	T	T_2	K	D_1
5.3 ± 0.1	7.3 \pm 0.1	16.0 ± 0.2	7.5 ± 0.1	1.75 ± 0.2	8.0 ± 0.1	2.0 ± 0.1	4.0 ± 0.1	1.55 ± 0.05	0.35 ± 0.05		1.8 ± 0.1	1.55 ± 0.1

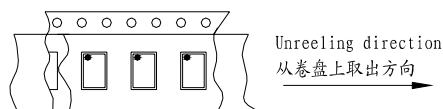
Cumulative pitch tolerance of P_0 shall be ± 0.2 mm at 10 pitches.
10个齿轮传送孔的累积误差为 ± 0.2

2. Leader and trailer tape 引导部与空缺部



3. Direction 方向

The direction shall be from the top cover tape side
从上面密封带一侧所见方向



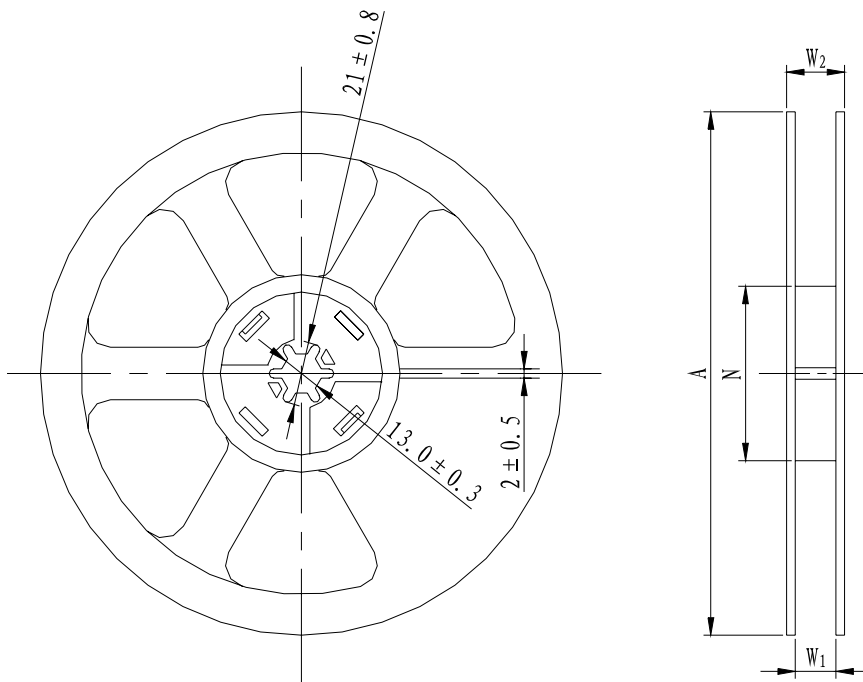
Reel 编带卷轮

---Reels 卷轮

Reel outer diameter A 卷轮外径	Hub diameter N 轮轴直径	Appropriate tape width 固有带宽	Reel inner width W ₁ 槽轮内宽	Reel outer width W ₂ 槽轮外宽	Packing quantity 封装数量
180 ⁰ ₋₃	60 ⁺¹ ₀	16	16 ± 0.3	20.4 ± 1.0	1,000个

Dimensions
形状尺寸

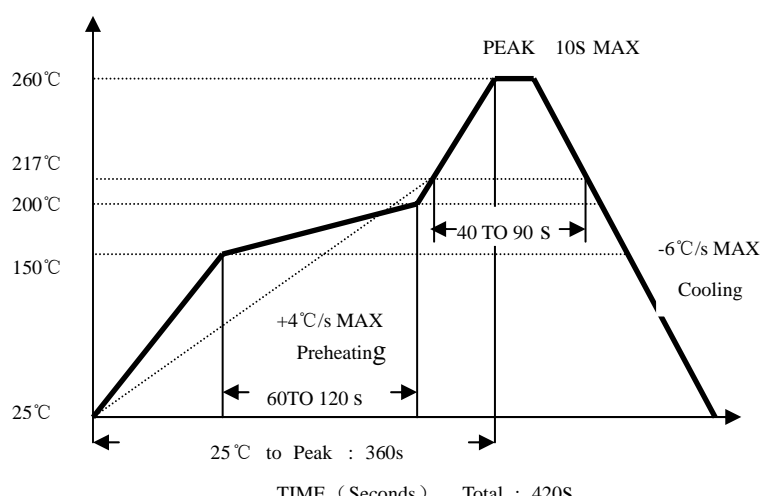
Unit
单位: mm



5 ENVIRONMENTAL (可靠性试验) -----Standard 标准: SJ/T 11256-2001

Test Item 项目	Condition of Test 试验条件及要求	Performance Requirements 性能要求
GROSS LEAK TEST 漏率	Helium: force 200kpa, dipping time 70min, blowing 5min, finishing the measure in 30min. 氦质谱, 压力 200kpa, 浸渍时间 70min, 吹风 5min, 30min 内完成测量泄露率 $\leq 4 \times 10^{-9}$ pa. m ³ /s	$\leq 4 \times 10^{-9}$ pa. m ³ /s
Vibration 振动	Endurance condition by a frequency sweep shall be made. the entire frequency range from 10HZ to 55HZ and return to 10HZ, shall be transversed in 1min. Amplitude (total excursion): 1.5mm This motion shall be applied for a period of 2h each of 3 mutually perpendicular axes(a total of 6h) 振动频率: 从 10HZ 到 55HZ, 再回到 10HZ 1 倍频程/min 幅度为 1.5mm 3 个相互垂直的方向各 2 小时	The parameters of table 3 must be satisfied 满足表 3 中的参数要求
Drop 跌落	From 1000mm height 2 times on 30mm hard wooden floor 振荡器从 1000 毫米高处跌落到 30 毫米厚的硬质木板上, 重复 2 次	
Shock 冲击	Peak acceleration: 1000m/s ² Duration of the pulse :6ms Three successive shocks shall be applied in both direction of 3 mutually perpendicular axes(a total of 18 shocks) 加速度: 1000m/s ² 时间: 6ms 作用在 3 个相互垂直的方向	
Damp heat, constant 恒定湿热	The unit shall be stored at a temperature of 40°C ± 2°C with relative humidity of 90% to 95% for 56d, then it shall be subjected to standard atmospheric conditions for 1h after which measurement shall be made. 在温度: 40°C ± 2°C、湿度: 90% to 95% 条件下存放 56 天, 然后在标准大气压下放置 1 小时后测试	
Cold 低温存储	The unit shall be stored at a temperature of -55 ± 3°C for 2h , then it shall be subjected to standard atmospheric conditions for 1h after which measurement shall be made. 在 -55°C ± 3°C 下存放 2 小时, 然后在标准大气压下放置 1 小时后测试	
Dry heat 高温存储	The unit shall be stored at a temperature of 125 ± 3°C for 16h , then it shall be subjected to standard atmospheric conditions for 1h after which measurement shall be made. 在 125°C ± 3°C 下存放 16 小时, 然后在标准大气压下放置 1 小时后测试	
Charged aging 带电老化	The unit shall be charged and stored at a temperature of 25 ± 2°C for 30d. 带电在 25 ± 2°C 下放置 30 天	
Aging 温度老化	The unit shall be stored at a temperature of 85 ± 2°C for 30d , then it shall be subjected to standard atmospheric conditions for 1h after which measurement shall be made. 在 85 ± 2°C 下放置 30 天, 然后在标准大气压下放置 1 小时后测试	

ENVIRONMENTAL (可靠性试验) -----Standard 标准: SJ/T 11256-2001

Test Item 项目	Condition of Test 试验条件	Performance Requirements 性能要求															
Temperature Cycling 温度循环	The unit shall be subjected to 10 successive change of temperature cycles, each as shown in table below, then it shall be subjected to standard atmospheric conditions for 1h after which measurement shall be made. 在下表给定温度和时间参数的条件下循环 10 次, 标准大气压下放置 1 小时后测试	The parameters of table 3 must be satisfied 满足表 3 中的参数要求															
	<table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;"></th> <th style="width: 45%;">Temperature 温度</th> <th style="width: 50%;">Duration 放置时间</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">-40°C ± 3°C</td> <td style="text-align: center;">30min (30 分钟)</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">standard atmospheric conditions 标准大气压</td> <td style="text-align: center;">Within 30S 30 秒内</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">85°C ± 3°C</td> <td style="text-align: center;">30min (30 分钟)</td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">standard atmospheric conditions 标准大气压</td> <td style="text-align: center;">Within 30S 30 秒内</td> </tr> </tbody> </table>		Temperature 温度	Duration 放置时间	1	-40°C ± 3°C	30min (30 分钟)	2	standard atmospheric conditions 标准大气压	Within 30S 30 秒内	3	85°C ± 3°C	30min (30 分钟)	4	standard atmospheric conditions 标准大气压	Within 30S 30 秒内	
	Temperature 温度	Duration 放置时间															
1	-40°C ± 3°C	30min (30 分钟)															
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3	85°C ± 3°C	30min (30 分钟)															
4	standard atmospheric conditions 标准大气压	Within 30S 30 秒内															
Solder ability 可焊性	Dip terminals in a 235±5°C solder bath for 2±0.2 seconds. 235±5°C 焊锡槽浸润 2 ± 0.2s 秒.	Solder ability 可焊性															
Resistance to soldering heat 耐焊接热	 <p style="text-align: center;">TIME (Seconds) Total : 420S</p> <p>Reflow soldering cure see the chart. 使用回流焊方法见上图 Soldering iron method: 推荐手工烙铁焊方式 Bit temperature : 350°C ± 10°C 温度: 350°C ± 10°C Application time of soldering iron : 3S MAX 时间: 3S MAX</p>	The parameters of table 3 must be satisfied 满足表 3 中的参数要求															

6 Notice 备注:

Standard atmospheric conditions:

Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows:

如无其他规定, 测试时的标准大气压的范围如下:

Ambient temperature	:	25°C ±10°C
Relative humidity	:	30% to 80%
Air pressure	:	860hPa to 1060hPa

If there is no doubt about the result, the measurements and tests shall be made within the follows limits:

如果对测试结果有疑问, 请在下面的条件下测试:

Ambient temperature	:	25°C ±2°C
Relative humidity	:	55% to 65%
Air pressure	:	860hPa to 1060hPa

If there has any change of the Part Specification, the ver code will be changed to B, C .. 如果本规格书有变更, 版本号将改变为 B, C... 依次类推.

8 ESD LEVEL 防静电等级

HBM CLASS 2 人体模式, 静电等级二

Class 2 : 2000v-4000v

MEC

REVIEW OF SPECIFICATIONS

- 1) When something get doubtful with this specifications, we shall jointly work to get an agreement.
- 2) This specification limits the quality of the components as a single unit. Please insure the component is thoroughly evaluated in your application circuit.
- 3) Please do not use this component in any application that deviates from its intended use as noted within the specification. It may cause any mishaps.
- 4) Please return one of this specification after your signature of acceptance. In case of no return within 3 months from submission date. This specification should be treated as accepted.

When using our products, the following precautions should be taken.

- (1) Safety designing of apparatus or a system allowing for failures of electronic components used in the system
In general, failures will occur in electronic components at a certain probability. MOBICON HOLDINGS LTD makes every effort to improve the quality and reliability of electronic component products. However, it is impossible to completely eliminate the probability of failures. Therefore, when using MOBICON HOLDINGS LTD electronic component products, systems should be carefully designed to ensure redundancy in the event of an accident which would result in injury or death, fire, or social damage, to ensure the prevention of the spread of fire, and the prevention of faulty operation.
- (2) Quality Level of various kinds of parts, and equipment in which the parts can be utilized
Electronic components have a standard quality level unless otherwise specified.
- (3) This specifications is subject to change without notice.
The contents of this specifications are based on data which is correct as of 2002, and they may be changed without notice. If our products are used for mass-production design, please enquire consult with a member of our company's sales staff by way of precaution.
- (4) Reprinting and copying of this specifications without prior written permission from MOBICON HOLDINGS LTD are not permitted.
- (5) Industrial Property Problems
In the event any problems associated with industrial property of a third party arising as a result of the use of our products. MOBICON HOLDINGS LTD assumes no responsibility for problems other than problems directly associated with the constitution and manufacturing method of the products.