

编号	SCTF202307340
日期	2023/7/29
版本	B01



承认书

SPECIFICATION FOR APPROVAL

客户名称 Customer Name:	立创商城
供应商物料名称 Part Name:	石英晶体振荡器
产品描述 Description:	OSC SMD7050 32.768KHz/3.3V
供应商物料料号 Part NO.:	SX7M32.768KB10F20TNN
供应商名称 Supplier Name :	深圳市星通时频电子有限公司

PLEASE CONFIRM OUR SPECIFICATION. 敬请确认规格书之内容。

CUSTOMER APPROVAL 客户审批		
物料代号 PART NO. _____		
使用于机型 USED IN MODEL: _____		
工程部	品质部	采购部

(敬请承认后返回一份, 谢谢!)

SUPPLIER APPROVAL 供应商审批		
DGN.制表人	CKD. 校对	APPD. 审核、签章
吴丽红	李良	胡华才

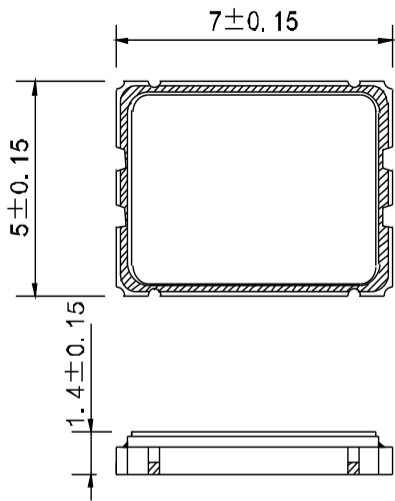
■ Electrical Specification 电气参数

N0.	Item	Electrical Spec.	Notes
1	Holder Type 封装	SMD7050	
2	Nominal Frequency 标称频率	32.768K Hz	
3	Frequency stability 常温频差	±10ppm	at 25°C±2°C
4	Temperature Drift 温度频差	±20ppm	at -40~85°C
5	Operating voltage 工作电压	3.3V	±10% max.
6	Output 输出模式	CMOS	
7	Output load condition 负载	15pF	
8	Current consumption 消耗电流	90 uA max.	
9	Operating temperature range 工作温度范围	-40~85°C	
10	Storage Temperature Range 存储温度范围	-55~125°C	
11	Duty Cycle 占空比	45%-55%	
12	Rise / Fall Time 上升/下降沿时间	25 nS max.	
13	High output voltage 高电平	0.9Vdd min.	
14	Low output voltage 低电平	0.1Vdd max.	
15	Start-up Time 起振时间	5mS max.	To 90% of Final Amplitude
16	Enable Voltage High (Logic 1) 使能高电平	70%Vdd min.	Output will be enable if OE is Logic 1 or open ;
17	Enable Voltage Low (Logic 0) 使能低电平	30%Vdd max.	Output will be disable if OE is Logic 0. 输出使能OE是高电平1或者悬空，频率输出； 输出使能OE是低电平0，则无频率输出。
18	Enable Delay Time 使能延迟	2 mS max.	
19	Aging 老化	±3ppm	1st. Year at 25°C

SHENZHEN SCTF ELECTRONICS CO. , LTD

DATE	Specification of quartz crystal oscillator 石英晶体振荡器规格书	Page:
2023/7/29	P/N: SX7M32.768KB10F20TNN Spec.NO.: SCTF202307340	3

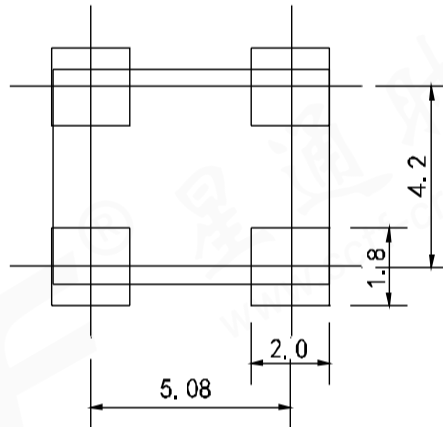
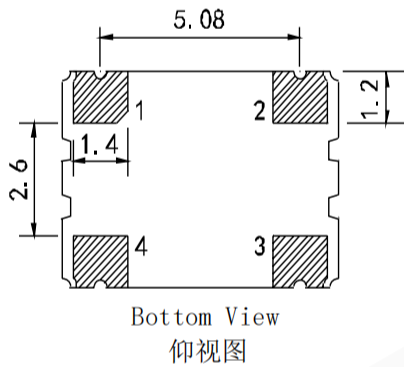
■ DIMENSIONS 产品尺寸



Units (单位): mm(毫米)

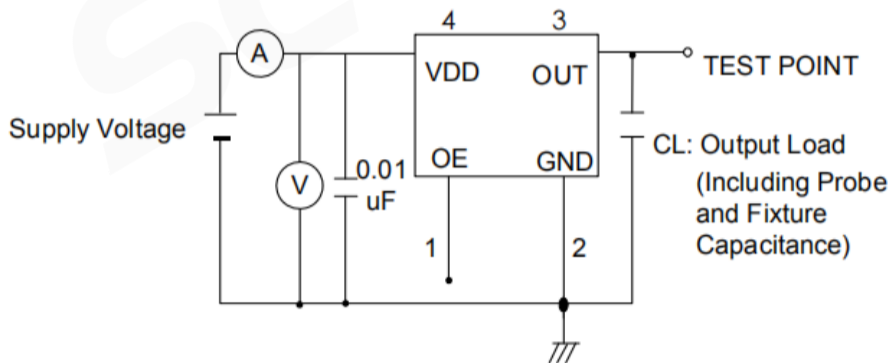
Pad Functions:

1. ENABLE CONTROL
2. GND
3. OUT PUT
4. VDD



suggested solder pad layout

■ TESTING CIRCUIT 测试电路



※ Notes: PIN 1 connected to Vdd or floating, the product is working properly; connected to GND, stops working.

SHENZHEN SCTF ELECTRONICS CO., LTD

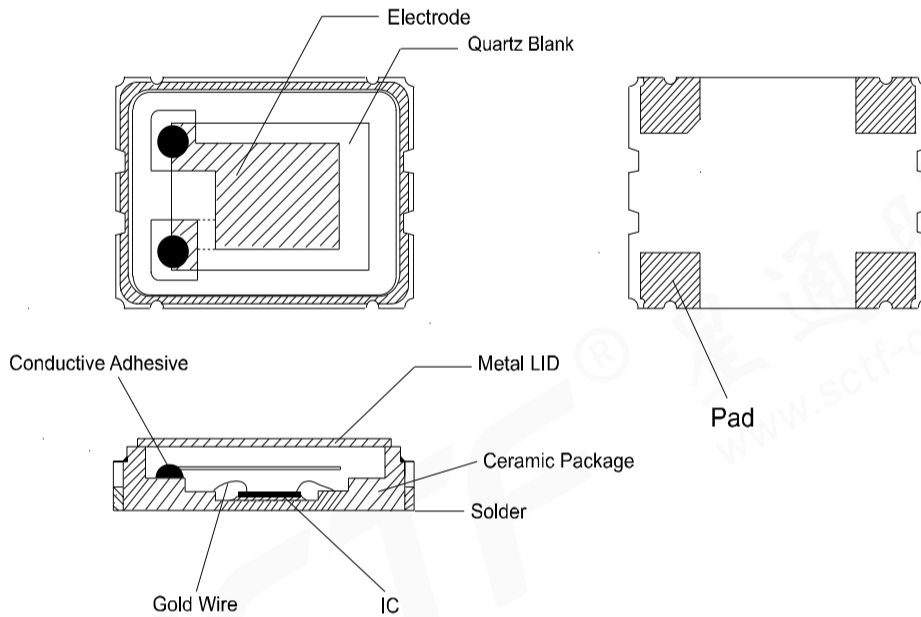
DATE	Specification of quartz crystal oscillator 石英晶体振荡器规格书	Page:
2023/7/29	P/N: SX7M32.768KB10F20TNN Spec.NO.: SCTF202307340	4

■ **WAVEFORM CONDITIONS 输出波形**

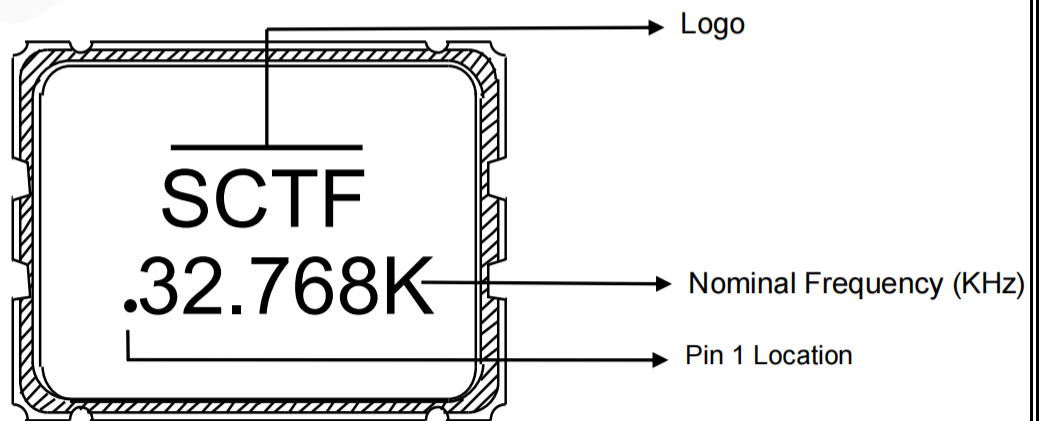


Waveform measurement system should have a min. bandwidth of 5 times the frequency being tested.

■ **Product Structure**



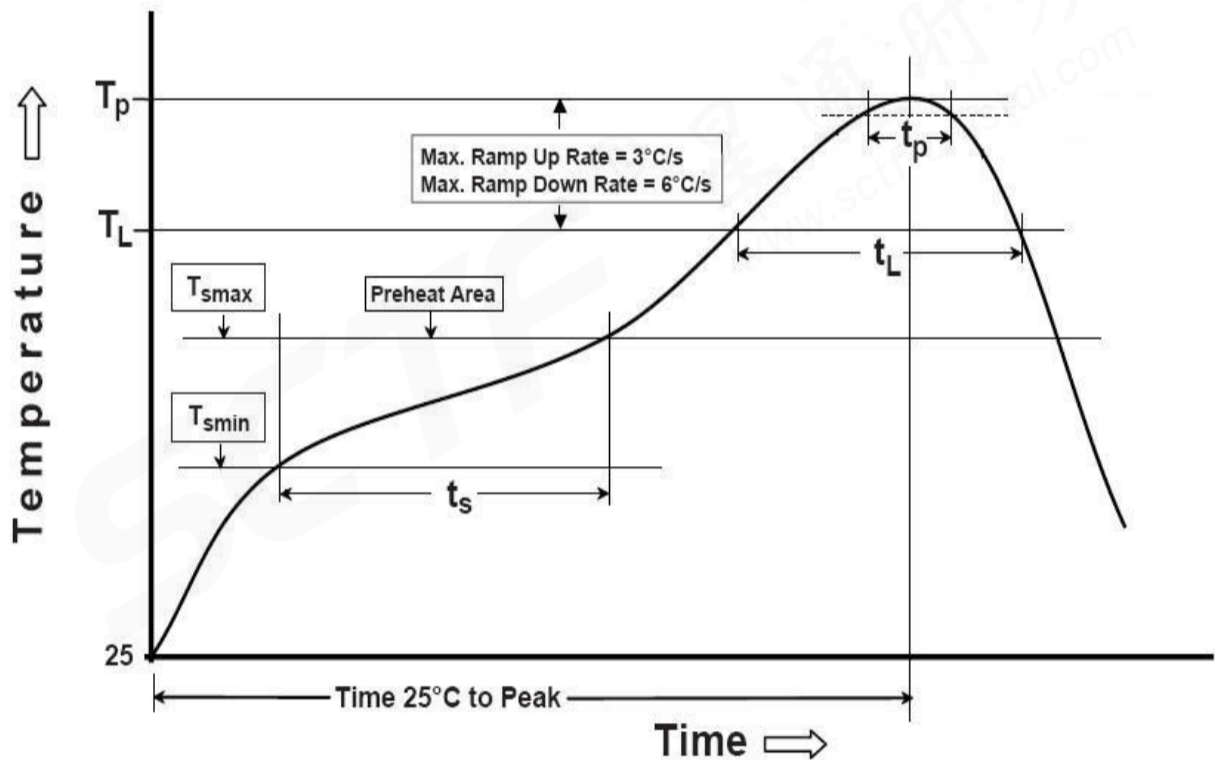
■ **Marking**



SHENZHEN SCTF ELECTRONICS CO. , LTD		
DATE	Specification of quartz crystal oscillator 石英晶体振荡器规格书	Page:
2023/7/29	P/N: SX7M32.768KB10F20TNN Spec.NO.: SCTF202307340	5

REFLOW PROFILES 回流焊条件

Profile Feature	Sn-Pb Eutectic Assembly	Pb-Free Assembly
Preheat/Soak		
●Temperature Min(Ts min)	100 °C	150 °C
●Temperature Max (Ts max)	150 °C	200 °C
●Time (Ts min to Ts max)	60-120 seconds	60-120 seconds
Ramp-up rate (TL to Tp)	3 °C/second max.	3 °C/second max.
Time maintained above		
●Liquidous temperature (TL)	183 °C	217 °C
●Time (tL) maintained above TL	60-150 seconds	60-150 seconds
Peak package body temperature (Tp)	235 °C	260 °C
Time within 5 °C of the specified classification temperature (Tp)	20 seconds	30 seconds
Ramp-down rate (Tp to TL)	6 °C/second max.	6 °C/second max.
Time 25 °C to peak temperature	6 minutes max.	8 minutes max.
Suggest reflow times	3 Times max.	



SHENZHEN SCTF ELECTRONICS CO. , LTD

DATE	Specification of quartz crystal oscillator 石英晶体振荡器规格书	Page:
2023/7/29	P/N: SX7M32.768KB10F20TNN Spec.NO.: SCTF202307340	6

■ RELIABILITY SPECIFICATION 可靠性参数

序号 NO.	项目 ITEM	条件 CONDITIONS	合格标准 BASIS OF VERDICT
1	跌落 Drop	100cm高处自由跌落到3cm厚木板上,3次 High:100cm;Thickness:3cm;3 times.	$\Delta FL \leq \pm 5 \text{ppm}$
2	振动 Vibration	频率 Frequency:10~500Hz: 速度 speed : 11min/cycle 幅度 Amplitude:1.5mm (10~55Hz) 加速度幅度 acceleration rate:200m/s ² (55~500Hz) 振动方向 Direction:X,Y, Z 测试周期 Test cycle : 10cycles	$\Delta FL \leq \pm 5 \text{ppm}$
3	低温存储 Low Temperature Storage	温度:-40°C±2°C;时间:96小时 Temp:-40°C±2°C;Times:96h	$\Delta FL \leq \pm 5 \text{ppm}$
4	高温存储 High Temperature Storage	温度:125°C±2°C;时间:96小时 Temp:125°C±2°C;Times:96h	$\Delta FL \leq \pm 5 \text{ppm}$
5	高温高湿 High Temp&Homidit	温度:85°C±2°C;湿度85%±5%;时间:1000小时 Temp:80°C±2°C;Humidity:85%±5%;Times:1000h	$\Delta FL \leq \pm 5 \text{ppm}$
6	冷热冲击 Thermal Shock	-40°C±2°C (30min) ↔ 85°C±2°C (30min);循环100次 -40°C±2°C (30min) ↔ 85°C±2°C (30min);For 100 cycles	$\Delta FL \leq \pm 5 \text{ppm}$
7	回流焊 Reflow	150°C±5°C保持120s后升到260°C±5°C保持10s, 升温 and 保温时间小于200s, 常温放置1~2h后测定 Keep 150 °C ± 5 °C 120s and then rose to 265 °C ± 5 °C for 10s, warming and holding time is less than the 200s, placed at room temperature 1 ~ 2h after test	$\Delta FL \leq \pm 5 \text{ppm}$
8	盐雾 Salt Spray	盐雾浓度:5%;温度:35°C;时间:24小时 Salt density:5%;Temp:35°C;Times:24h	目测无明显腐蚀现象 Visual no significant corrosion.
9	老化 Aging	温度:85°C;时间:30天 Temp:85°C;Times:30days	$\Delta FL \leq \pm 5 \text{ppm}$
10	气密性 Leakage Test	使用氦谱检测设备。 Measured by the helium leak detector.	漏气小于 $1.0 \times 10^{-9} \text{Pa}$ < $1.0 \times 10^{-9} \text{Pa m}^3/\text{s}$.
11	可焊性 Soldering Test	在245°C±5°C的锡槽中浸渍3±0.5秒。 Dipping in solder bath at 245deg.C ±5deg.C for 3±0.5 sec.	浸锡率大于95% Soldering tin rate greater than 95%

SHENZHEN SCTF ELECTRONICS CO., LTD

DATE

Specification of quartz crystal oscillator
石英晶体振荡器规格书

Page:

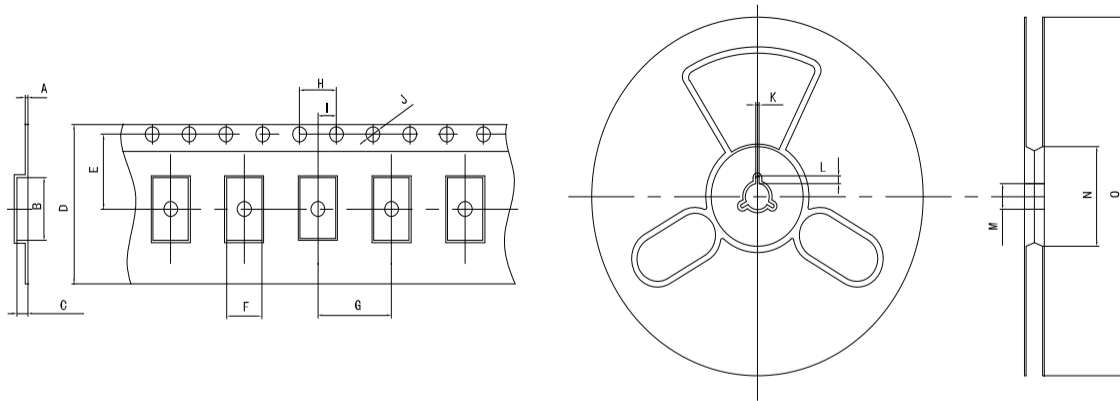
2023/7/29

P/N: SX7M32.768KB10F20TNN
Spec.NO.: SCTF202307340

7

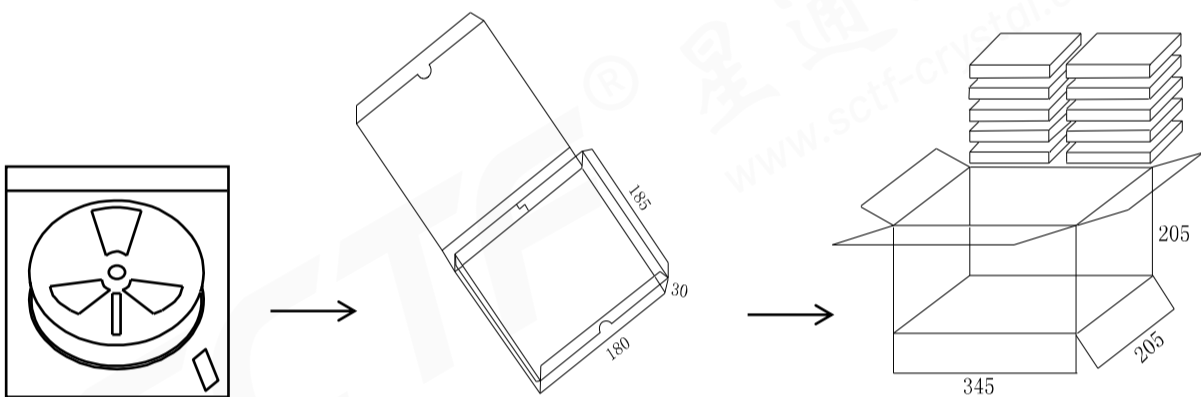
■ Taping Specifications

UNIT(单位) :mm(毫米)



TEYE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
5×7 SMD	0.3	7.5	2.0	16.0	7.5	5.5	8.0	4.0	2.0	1.5	2.0	4.0	13.0	60.0	180.0

■ Packaging specifications



自封袋(Bag)
1000只 = 1 轮
1000pcs = 1 Reel

内包装(Inside package)
1 轮=1 盒
1 Reel=1 box

外包装(Outside Package)
10 盒=1 箱
10 box=1 carton

SHENZHEN SCTF ELECTRONICS CO. , LTD

DATE

Specification of quartz crystal oscillator
石英晶体振荡器规格书

Page:

2023/7/29

P/N: SX7M32.768KB10F20TNN
Spec.NO.: SCTF202307340

8

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Standard Clock Oscillators](#) category:

Click to view products by [SCTF](#) manufacturer:

Other Similar products are found below :

[601252](#) [F335-25](#) [F535L-33.333](#) [F535L-50](#) [NBXHBA019LN1TAG](#) [SiT1602BI-22-33E-50.000000E](#) [SIT8918AA-11-33S-50.000000G](#)
[SM4420TEV-40.0M-T1K](#) [F335-24](#) [F335-40](#) [F535L-10](#) [F535L-12](#) [F535L-24](#) [F535L-27](#) [PE7744DW-100.0M](#) [ASF1-3.686MHZ-N-K-S](#) [ASV-](#)
[4.000MHZ-LCS-T](#) [XO57CTECNA3M6864](#) [601251](#) [SiT8503AI-18-33E-0.200000X](#) [SIT9122AI2C233E300.000000X](#) [9120AC-2D2-](#)
[33E212.500000](#) [9102AI-243N25E100.000000](#) [8208AC-82-18E-25.000000](#) [8008AI-72-XXE-24.545454E](#) [8004AC-13-33E-133.330000X](#) [AS-](#)
[4.9152-16-SMD-TR](#) [ASFL1-48.000MHZ-LC-T](#) [632L3I004M000000](#) [SIT8920AM-31-33E-25.000000](#) [DSC1028DI2-019.2000](#) [9121AC-2C3-](#)
[25E100.000000](#) [9102AI-233N33E100.000000X](#) [9102AI-233N25E200.000000](#) [9102AI-232H25S125.000000](#) [9102AI-133N25E200.000000](#) [9102AC-](#)
[283N25E200.000000](#) [9001AC-33-33E1-30.000000](#) [8103AC-13-33E-12.000000X](#) [3921AI-2CF-33NZ125.000000](#) [5730-1SF](#) [XUN736000.032768I](#)
[ASV-25.000MHZ-ECS-50-T](#) [EC3925ETTTS-100.000M TR](#) [SIT1602BC-83-33E-10.000000Y](#) [8003AI-12-33S-40.000000Y](#) [1602BI-13-33S-](#)
[19.200000E](#) [8208AI-2F-18E-25.000000X](#) [8103AI-83-33E-33.000000X](#) [8208AI-8F-33E-66.666666X](#)