

| | |
|----|---------------|
| 编号 | SCTF202305671 |
| 日期 | 2023/5/16 |
| 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 | : | 差分输出石英晶体振荡器 |
| 产品描述 Description | : | SMD3225 125.000MHz/3.3V/LVPECL |
| 供应商物料料号 Part NO. | : | SX3DF125.000B20F30PNN |
| 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 | 李霞 | 胡华才 |

地址: 深圳市南山区龙珠四路方大城T2栋10楼

Add: 10 / F, Building T2, Fangdacheng, Longzhu 4th Road, Nanshan District, Shenzhen, China.

Website: www.sctf-crystal.com

Email: info@sctf-crystal.com

TEL: 0755-86097430

FAX: 0755-86097259

Page : 1

■ Electrical Specification 电气参数

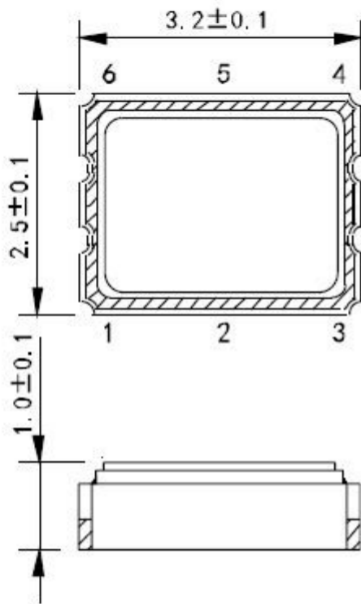
| No. | Item | Electrical Spec. | Notes |
|-----|--|------------------|---|
| 1 | Holder Type 封装 | SMD3225 | |
| 2 | Nominal Frequency 标称频率 | 125.000000 MHz | |
| 3 | Frequency Stability 常温频差 | ±20ppm | at 25°C ±2°C |
| 4 | Temperature Drift 温度频差 | ±30ppm | at - 40°C ~ +85 °C |
| 5 | Operating Voltage 工作电压 | 3.3V | ± 5% max. |
| 6 | Output 输出模式 | LVPECL | |
| 7 | Output Load 输出负载 | 50Ω VDD-2V | |
| 8 | Current Consumption 消耗电流 | 75 mA Max. | at maximum supply voltage |
| 9 | Operating Temperature Range 工作温度范围 | -40°C ~ +85°C | |
| 10 | Storage Temperature Range 存储温度范围 | -55°C ~ +125°C | |
| 11 | Duty Cycle 占空比 | 45% ~ 55% | |
| 12 | Rise / Fall Time 上升/下降沿时间 | 1 nS Max. | 20~80% Vdd |
| 13 | High Output Voltage 高电平 | 2.275V Min. | |
| 14 | Low Output Voltage 低电平 | 1.68V Max. | |
| 15 | Start-up Time 起振时间 | 10 mS Max. | to 90% of final amplitude |
| 16 | Phase Noise 相位噪声 | -120dBc/Hz Max. | at 1KHz offset |
| 17 | RMS Phase Jitter 均方根抖动 | 0.5pSec Max. | Period Jitter(12KHz-20MHz) |
| 18 | Enable Voltage High (Logic 1) 使能高电平 | 70%Vdd Min. | Pin 1 Tri-state Outputs will be enable if OE is Logic 1 or open; |
| 19 | Enable Voltage Low (Logic 0) 使能低电平 | 30%Vdd Max. | Outputs 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. |
| 20 | Aging 老化 | ±3ppm | 1st. Year at 25°C |

SHENZHEN SCTF ELECTRONICS CO., LTD

| DATE | Specification of differential output oscillator 差分输出石英晶体振荡器规格书 | Page: |
|-----------|---|-------|
| 2023/5/16 | P/N: SX3DF125.000B20F30PNN Spec.NO.: SCTF202305671 | 3 |

■ DIMENSIONS 产品尺寸

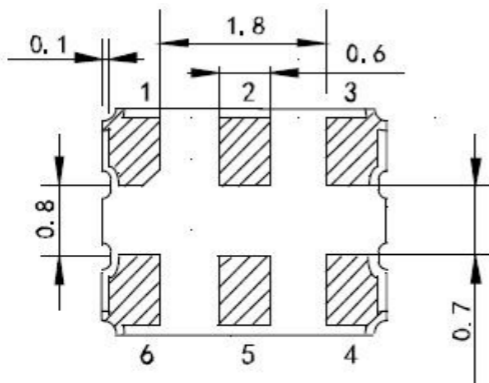
Units (单位): mm(毫米)



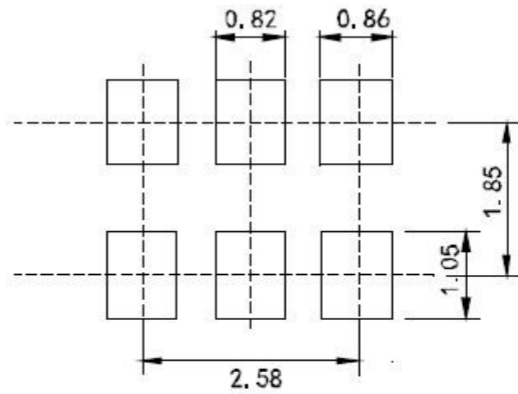
Pad Functions:

1. EN
2. NC
3. GND
4. Output
5. Comp. Output
6. Vdd

■ Pad size 焊盘尺寸

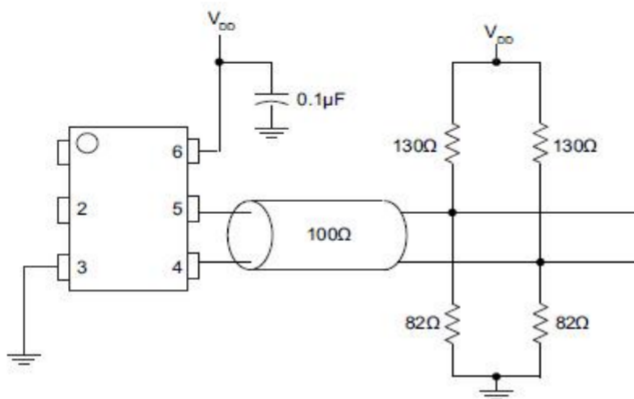


Bottom View



Suggested solder pad layout

■ TESTING CIRCUIT 测试电路

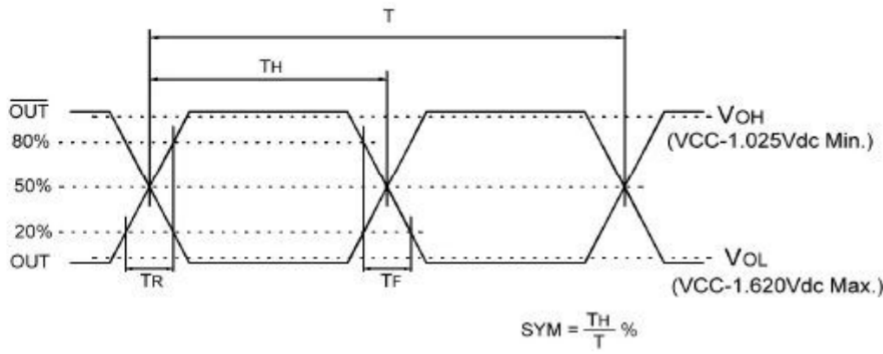


※ Notes: PIN 1 connected to Vdd or floating, the product is working properly; connected to GND, stops working.

SHENZHEN SCTF ELECTRONICS CO., LTD

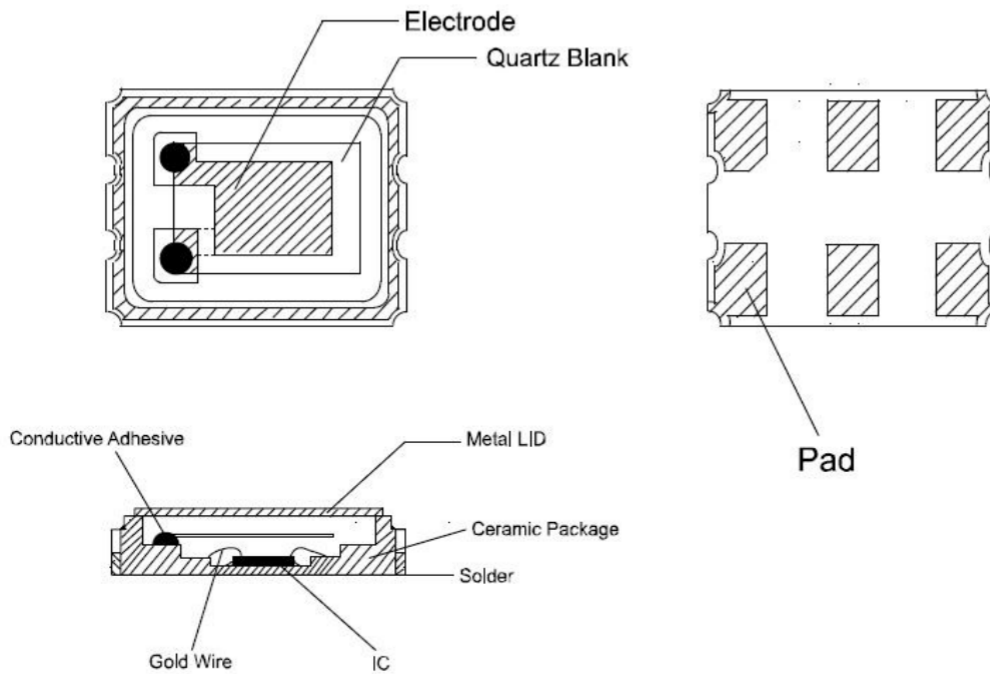
| | | |
|-----------|---|-------|
| DATE | Specification of differential output oscillator 差分输出石英晶体振荡器规格书 | Page: |
| 2023/5/16 | P/N: SX3DF125.000B20F30PNN Spec.NO.: SCTF202305671 | 4 |

■ WAVEFORM CONDITIONS 输出波形

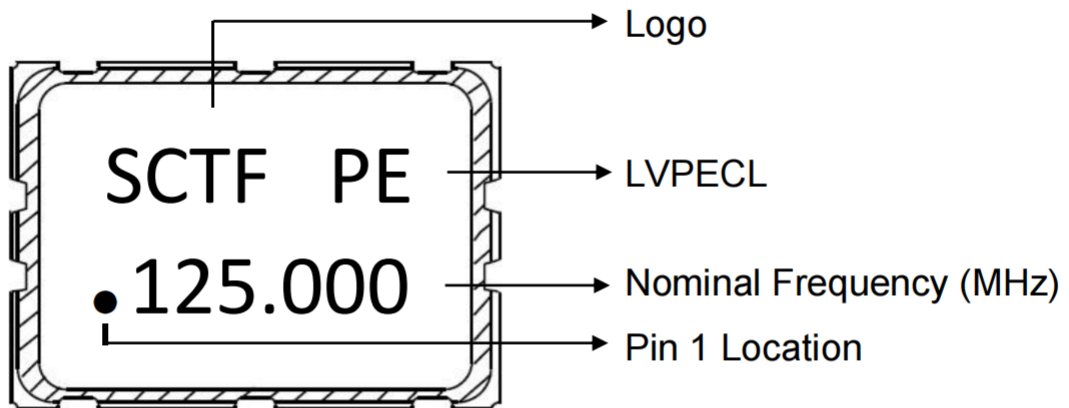


Waveform measurement system should have a min. bandwidth of 5 times the frequency being tested.

■ Product Structure 产品结构



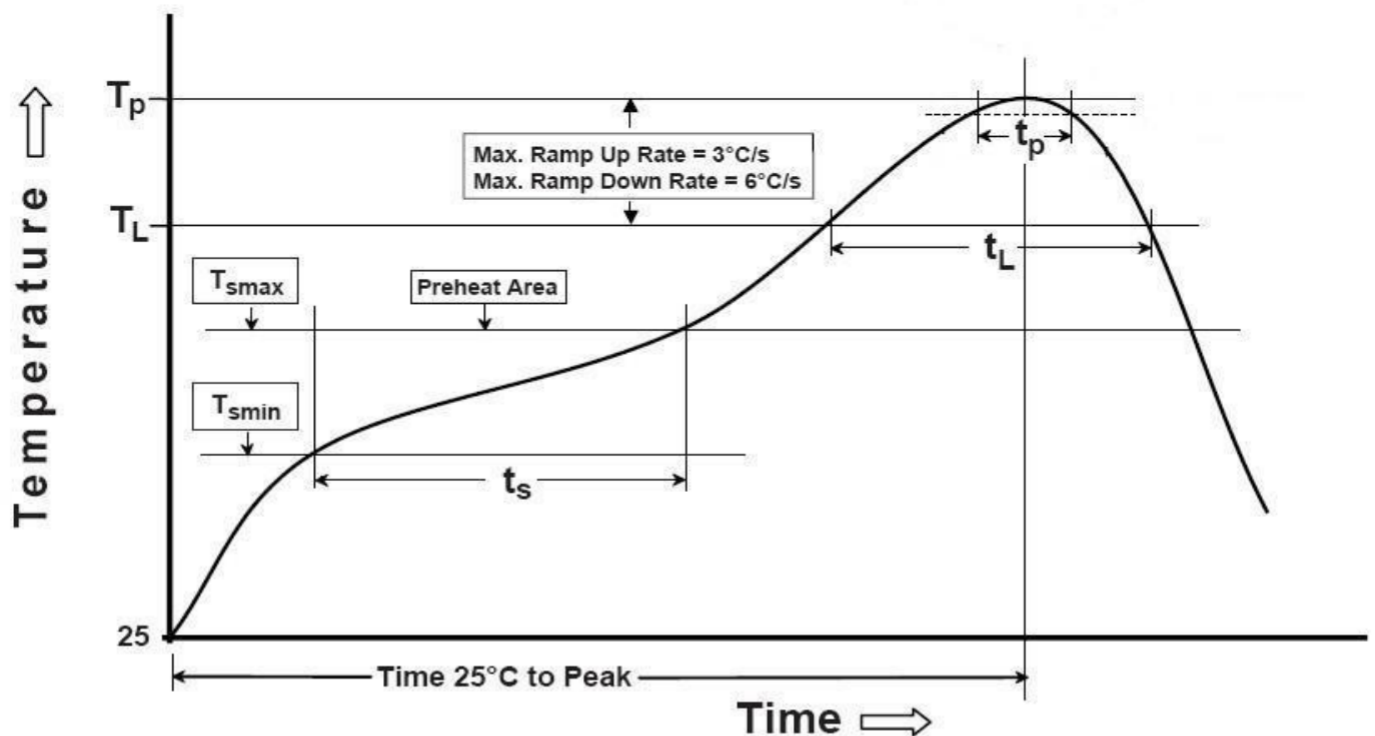
■ Marking 印字



| SHENZHEN SCTF ELECTRONICS CO., LTD | | |
|------------------------------------|---|-------|
| DATE | Specification of differential output oscillator 差分输出石英晶体振荡器规格书 | Page: |
| 2023/5/16 | P/N: SX3DF125.000B20F30PNN Spec.NO.: SCTF202305671 | 5 |

REFLOW PROFILES 回流焊条件

| Profile Feature | Sn-Pb Eutectic Assembly | Pb-Free Assembly |
|--|-------------------------|------------------|
| Preheat/Soak | | |
| ● Temperature Min (T_s min) | 100 °C | 150 °C |
| ● Temperature Max (T_s max) | 150 °C | 200 °C |
| ● Time (T_s min to T_s max) | 60-120 seconds | 60-120 seconds |
| Ramp-up rate (T_L to T_p) | 3 °C/second max. | 3 °C/second max. |
| Time maintained above | | |
| ● Liquidous temperature (T_L) | 183 °C | 217 °C |
| ● Time (T_L) maintained above T_L | 60-150 seconds | 60-150 seconds |
| Peak package body temperature (T_p) | 235 °C | 260 °C |
| Time within 5 °C of the specified classification temperature (T_p) | 20 seconds | 30 seconds |
| Ramp-down rate (T_p to T_L) | 6 °C/second max. | 6 °C/second max. |
| Time 25 °C to peak temperature | 6 minutes max. | 8 minutes max. |
| Suggest reflow times | 2 Times max. | |



SHENZHEN SCTF ELECTRONICS CO., LTD

| DATE | Specification of differential output oscillator 差分输出石英晶体振荡器规格书 | Page: |
|-----------|---|-------|
| 2023/5/16 | P/N: SX3DF125.000B20F30PNN Spec.NO.: SCTF202305671 | 6 |

■ RELIABILITY SPECIFICATION 可靠性参数

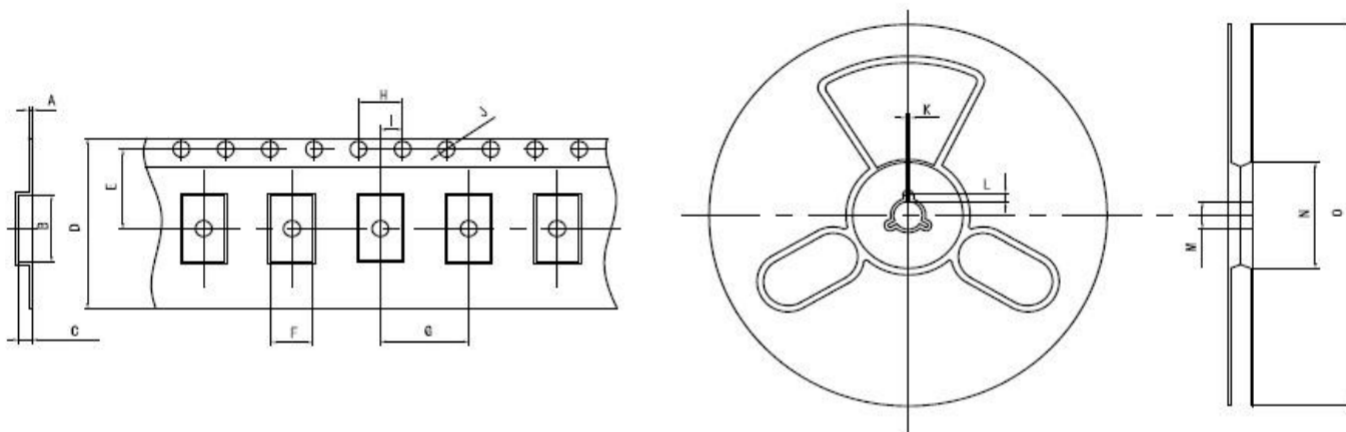
| No. | 项目 ITEM | 条件 CONDITIONS | 合格标准 BASIS OF VERDICT |
|-----|---------------------------|---|---|
| 1 | 跌落 DROP | 100cm高处自由跌落到3cm厚木板上,3次 High: 100cm; Thickness: 3cm; 3 times. | $\Delta FL \leq \pm 5 \text{ppm}$ |
| 2 | 振动 VIBRATION | 频率 Frequency: 10~57.7Hz; 幅度 Amplitude: $\pm 0.75 \text{mm}$ 频率 Frequency: 57.7Hz~500Hz; 加速度幅度 acceleration rate: 98m/s^2 周期 Cycle time: 10-500-10Hz: 15min 振动方向 Direction: X, Y, Z 振动时间 Duration: 每个方向2小时 2 h/direction. | $\Delta FL \leq \pm 5 \text{ppm}$ |
| 3 | 温度变化 TEMPERATURE SHOCK | $-40^\circ\text{C} \pm 2^\circ\text{C}$ (30min) \leftrightarrow $85^\circ\text{C} \pm 2^\circ\text{C}$ (30min); 循环10次 $-40^\circ\text{C} \pm 2^\circ\text{C}$ (30min) \leftrightarrow $85^\circ\text{C} \pm 2^\circ\text{C}$ (30min); For 10 | $\Delta FL \leq \pm 5 \text{ppm}$ |
| 4 | 湿热 HUMIDITY | cycles 温度: $40^\circ\text{C} \pm 2^\circ\text{C}$; 湿度 90-95%; 时间: 96小时 Temp: $40^\circ\text{C} \pm 2^\circ\text{C}$; Humidity: 90-95%; Times: 96h | $\Delta FL \leq \pm 5 \text{ppm}$ |
| 5 | 低温 COLD RESISTANCE | 温度: $-40^\circ\text{C} \pm 2^\circ\text{C}$; 时间: 96小时 Temp: $-40^\circ\text{C} \pm 2^\circ\text{C}$; Times: 96h | $\Delta FL \leq \pm 5 \text{ppm}$ |
| 6 | 高温1 HEAT RESISTANCE 1 | 温度: $100^\circ\text{C} \pm 2^\circ\text{C}$; 时间: 96小时 Temp: $100^\circ\text{C} \pm 2^\circ\text{C}$; Times: 96h | $\Delta FL \leq \pm 5 \text{ppm}$ |
| 7 | 高温2 HEAT RESISTANCE 2 | 温度: $155^\circ\text{C} \pm 2^\circ\text{C}$; 时间: 2小时 Temp: $155^\circ\text{C} \pm 2^\circ\text{C}$; Times: 2h | $\Delta FL \leq \pm 5 \text{ppm}$ |
| 8 | 高温3 HEAT RESISTANCE 3 | 温度: $85^\circ\text{C} \pm 2^\circ\text{C}$; 电压: 3.3V/5.0V; 时间: 96小时 Temp: $85^\circ\text{C} \pm 2^\circ\text{C}$; Voltage: 3.3V/5.0V; Times: 96h | $\Delta FL \leq \pm 5 \text{ppm}$ |
| 9 | 回流焊 REFLOW | $150^\circ\text{C} \pm 5^\circ\text{C}$ 保持120s后升到 $270^\circ\text{C} \pm 5^\circ\text{C}$ 保持10s, 升温和保温时间小于200s, 常温放置1~2h后测定 Keep $150^\circ\text{C} \pm 5^\circ\text{C}$ 120s and then rose to $270^\circ\text{C} \pm 5^\circ\text{C}$ for 10s, warming and holding time is less than the 200s, placed at room temperature 1 ~ 2h after test | $\Delta FL \leq \pm 5 \text{ppm}$ |
| 10 | 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 |
| 11 | 老化 AGING | 温度: 85°C ; 时间: 30天 Temp: 85°C ; Times: 30days | $\Delta FL \leq \pm 5 \text{ppm}$ |
| 12 | 气密性 LEAKAGE | 氦气(0.6~0.65MPa): 10分钟 He(0.6~0.65MPa): 10min | $\leq 3 \times 10^{-9} \text{Pa} \cdot \text{m}^3/\text{s}$ |
| 13 | 焊接 SOLDER | 温度: $260^\circ\text{C} \pm 5^\circ\text{C}$ Temp: $260^\circ\text{C} \pm 5^\circ\text{C}$ | 浸锡率大于90% Soldering tin rate greater than 90% |

SHENZHEN SCTF ELECTRONICS CO., LTD

| | | |
|-----------|---|-------|
| DATE | Specification of differential output oscillator 差分输出石英晶体振荡器规格书 | Page: |
| 2023/5/16 | P/N: SX3DF125.000B20F30PNN Spec.NO.: SCTF202305671 | 7 |

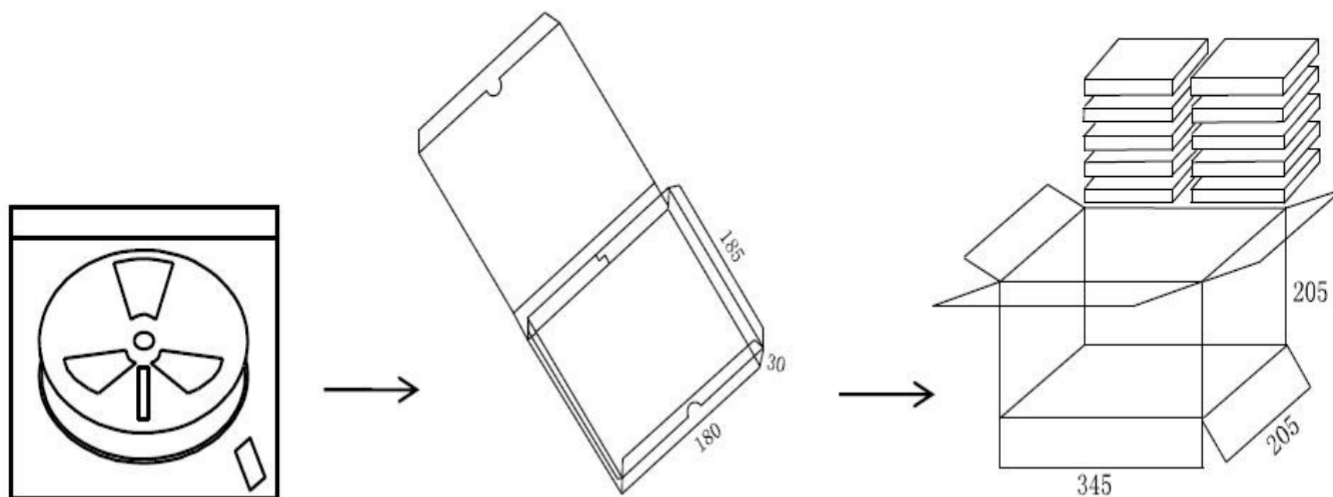
■ Taping Specifications 编带规格

UNIT(单位):mm(毫米)



| TEYE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|--------|
| 3.2×2.5 SMD | 0.25 | 3.60 | 1.30 | 8.00 | 3.50 | 2.90 | 4.00 | 4.00 | 2.00 | 1.50 | 2.00 | 4.00 | 13.00 | 60.00 | 180.00 |

■ Packaging specifications 包装规格



自封袋(Bag)
3000只 = 1 轮
3000pcs = 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 differential output oscillator 差分输出石英晶体振荡器规格书 | Page: |
|-----------|---|-------|
| 2023/5/16 | P/N: SX3DF125.000B20F30PNN Spec.NO.: SCTF202305671 | 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](#) [SiT8209AI-32-33E-125.000000](#)
[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](#) [XLH735025.000JU4I8](#) [XLP725125.000JU6I8](#) [XO57CTECNA3M6864](#) [601251](#)
[SiT8503AI-18-33E-0.200000X](#) [SIT8918AA-11-33S-16.000000G](#) [SIT9122AI2C233E300.000000X](#) [XO37CTECNA20M](#) [9120AC-2D2-](#)
[33E212.500000](#) [9102AI-243N25E100.000000](#) [8208AC-82-18E-25.000000](#) [8008AI-72-XXE-24.545454E](#) [8004AC-13-33E-133.33000X](#) [ASFL1-](#)
[48.000MHZ-LC-T](#) [632L3I004M00000](#) [SIT8920AM-31-33E-25.0000](#) [9121AC-2C3-25E100.000000](#) [9102AI-233N33E100.00000X](#) [9102AI-](#)
[233N25E200.000000](#) [9102AI-232H25S125.000000](#) [9102AI-133N25E200.000000](#) [9102AC-283N25E200.000000](#) [9001AC-33-33E1-30.000](#)
[8103AC-13-33E-12.00000X](#) [3921AI-2CF-33NZ125.000000](#) [5730-1SF](#) [XUN736000.032768I](#) [EC3925ETTTS-100.000M TR](#) [SIT1602BC-83-](#)
[33E-10.000000Y](#) [8003AI-12-33S-40.00000Y](#) [1602BI-13-33S-19.200000E](#) [8208AI-2F-18E-25.000000X](#)