
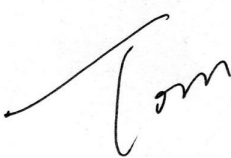
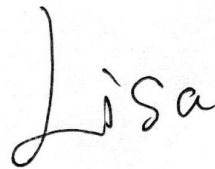


|                        |                    |
|------------------------|--------------------|
| <b>Customer</b>        |                    |
| <b>Production Name</b> | <b>OSC 2.0*1.6</b> |
| <b>Customer P/N</b>    | <b>N/A</b>         |
| <b>TROQ P/N</b>        | <b>RU19200012</b>  |
| <b>Revision</b>        | <b>A</b>           |
| <b>Print Date</b>      | <b>2023/5/11</b>   |

| <b>Drawn</b>  | <b>Checked</b>  | <b>Approved</b>   |
|---|---|---|
|  |  |  |

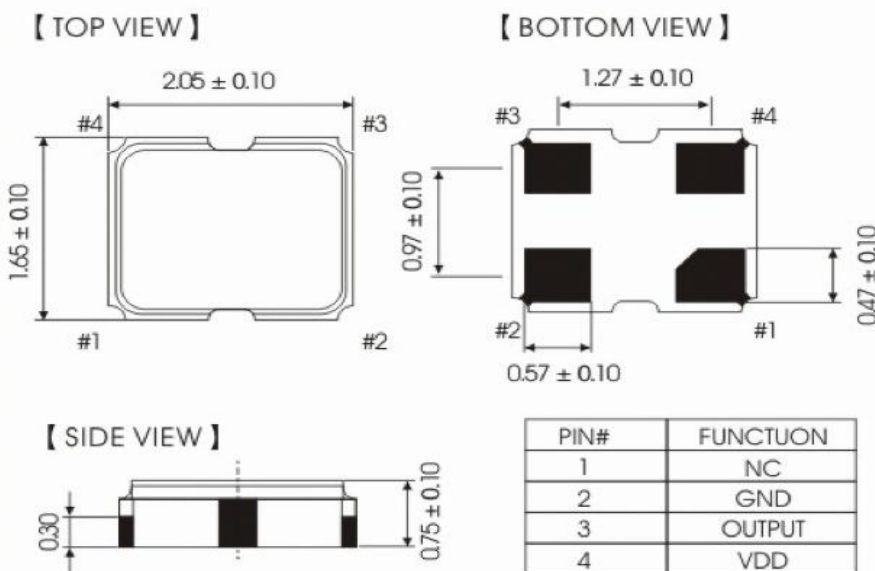


Conforms to AEC-Q200

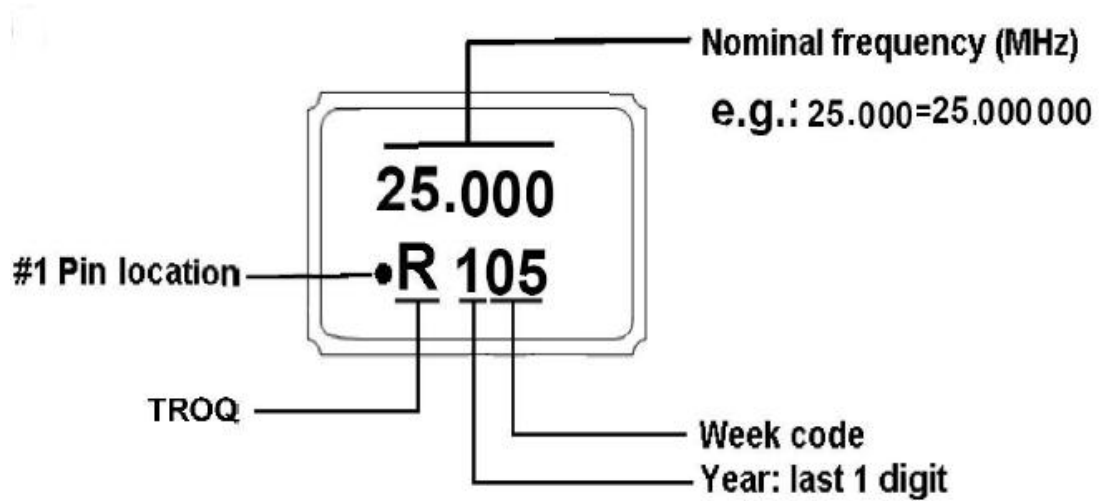
● ELECTRICAL PARAMETERS

| 谐振器产品技术指标                          | Min   | Max | Units    |
|------------------------------------|---|-----|----------|
| 1.Holder Type                      | OSC 2.0*1.6                                 |     |          |
| 2.Mode of Oscillation              | Fundamental                                 |     |          |
| 3.Frequency                        | 19.200000                                   |     | MHZ      |
| 4.Load Capacitance (CL)            | 15  |     | pF       |
| 5.Frequency Tolerance              | -25   | 25  | ppm      |
| 6.Operating Temperature Range      | -20   | 70  | °C       |
| 7.Storage Temperature Range        | -40   | 85  | °C       |
| 8.Supply Voltage(VDD)              | 3.3±10%                                     |     | V        |
| 9.“0”Level (VOL)                   |   | 0   | V        |
| 10.“1”Level(VOH)                   | 0   |     | V        |
| 11.Enable High Voltage(ELH)        | 0   |     | V        |
| 12.Enable Low Voltage(ELL)         |   | 0   | V        |
| 13.Symmetry of Wave From(Symmetry) | 45~55%                                      |     |          |
| 14.Current Consumption(IDD)        |   | 4.0 | m A      |
| 15.Rise and Fall Time(Tr,Tf)       |   | 5.0 | nSec     |
| 16.Start time(tosc)                |   | 5.0 | mSec     |
| 17.Aging                           | ± 5   |     | ppm/year |
| 18.Output waveform                 | CMOS  |     |          |
| 19.Other                           | Moisture Sensitivity Level (零件湿敏等级) Level 1 |     |          |

OUTLINE DIMENSIONS(UNIT:mm) 外形尺寸 (单位: mm)



● **Marking (标记)**

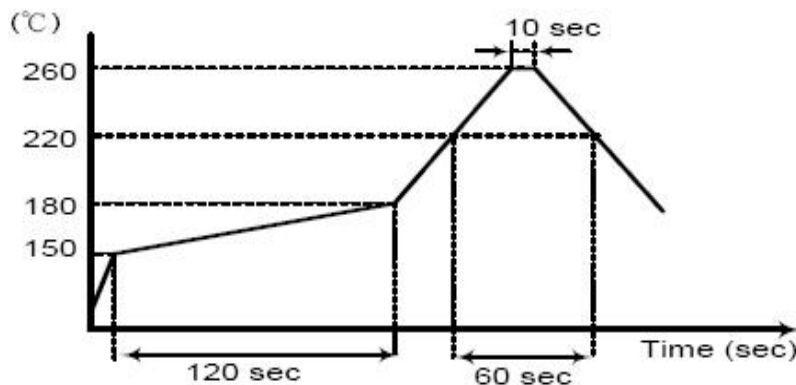


● **SUGGESTED REFLOW PROFILE** (回流焊曲线图)

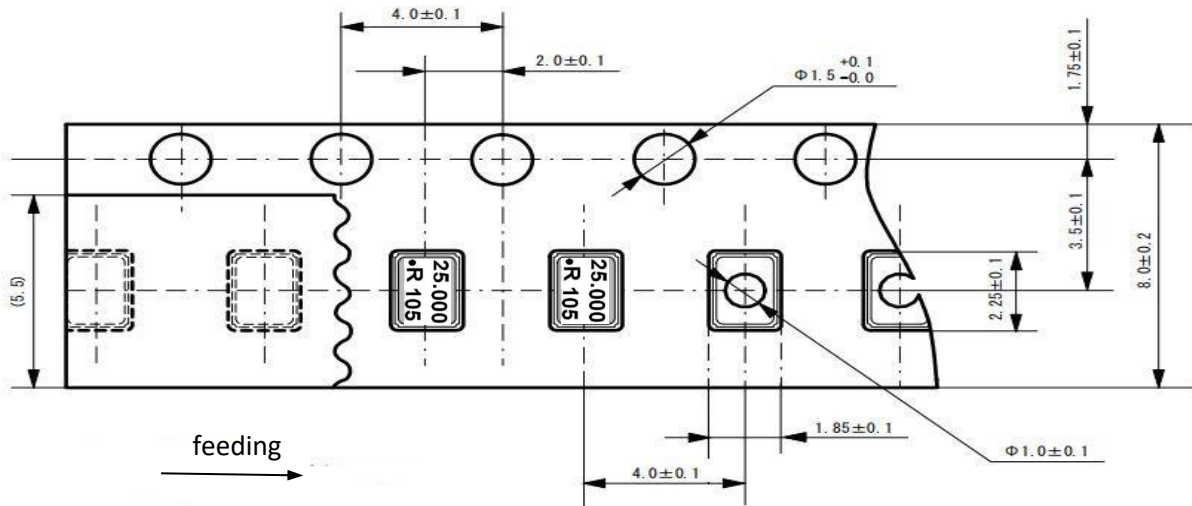
**Total time:200sec.Max.** (总时间: 200秒 最大)

**Solder melting point:220°C** (熔点220 °C)

| Profiles Feature (特性)                                 |               | Pb-Free Assembly |
|---|---------------|------------------|
| Average Ramp-up Rate(Ts max to Tp)                    | 平均升温速度        | 3°C/second Max   |
| <b>Preheat</b>  | 预热            |                  |
| ■ Temperature Min (Ts min)                            | 最低温度          | 125°C            |
| ■ Temperature Max (Ts max)                            | 最高温度          | 200°C            |
| ■ Time (ts min to ts max )                            | 从最低到最高时间      | (60~180) seconds |
| <b>Time maintained above</b>                          | 维持上述时间        |                  |
| ■ Temperature(T1)                                     | 温度            | 217°C            |
| ■ Time(tp)  | 时间            | (60~150) seconds |
| <b>Peak/Classification Temperature(Tp)</b>            | 最高点温度         | 260 °C           |
| <b>Time within 5°C of actual Peak Temperature(tp)</b> | 高温维持时间        | (20~40) seconds  |
| <b>Ramp-down rate</b>                                 | 降温速度          | 6°C/second max   |
| <b>Time 25°C to Peak Temperature</b>                  | 从25°C到最高温度的时间 | 8 minutes max    |
| <b>Suggest reflow times</b>                           | 建议 reflow次数   | 3 Times max      |

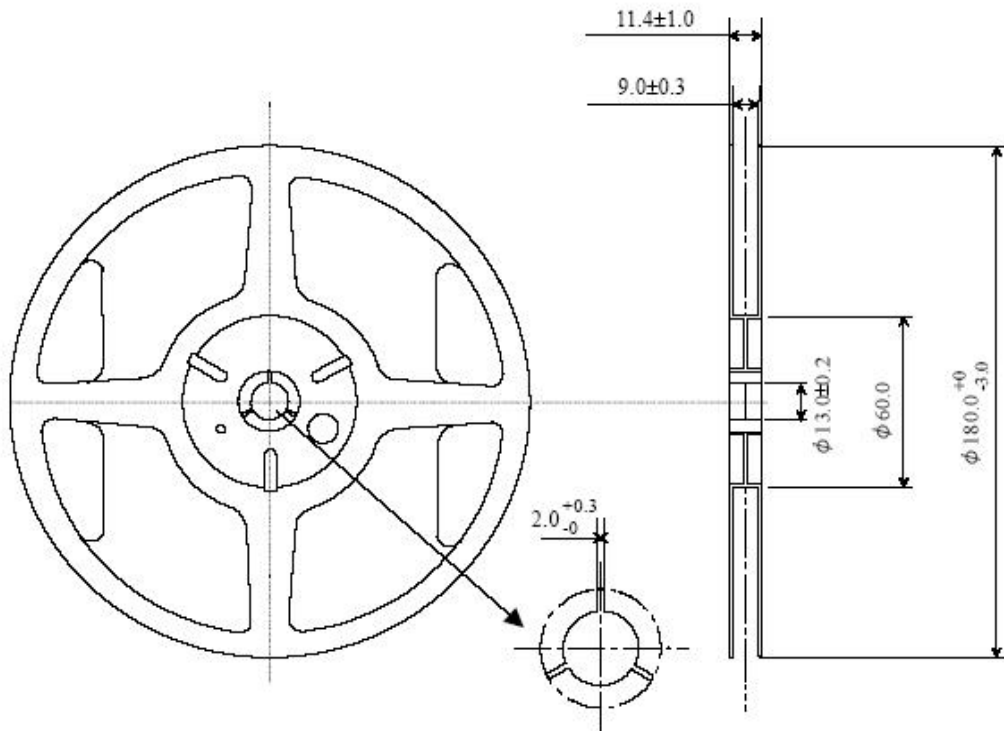


- PACKING (包装) 3Kpcs/REEL



8.3. Reel dimension & Outline drawing

Material of the Reel : PS



● RELIABILITY SPECIFICATIONS (信赖度试验)

| No | Test Item (测试项目)                                  | Test Conditions (测试条件)  | Reference (参考)                         |
|----|---|---|--|
| 1  | High Temperature High Humidity Storage (高温、高湿、储存) | Temperature: 85°C±3°C<br>温度: 85°C±3°C<br>Relative Humidity:85%RH<br>相对湿度: 85%RH<br>Time: 96 Hours<br>时间: 96小时   | JIS C5023                              |
| 2  | High Temperature Storage (高温储存)                   | Temperature: 125°C±3°C<br>温度:125°C ±3°C<br>Time: 96 Hours<br>时间:96 小时   | MIL-STD-883E<br>Method 1005.8          |
| 3  | Low Temperature Storage (低温储存)                    | Temperature: -40°C ±3°C<br>温度: -40°C ±3°C<br>Time: 96Hours<br>时间: 96小时  | MIL-STD-883E<br>Method 1013            |
| 4  | Thermal Shock (温度冲击)                              | Temperature1:-55°C ±5°C<br>温度1:-55°C ±5°C<br>Temperature2:85°C ±5 °C<br>温度2: 85°C ±5 °C<br>Temperature change between T1 and T2 5 min<br>T1和T2温度在5分钟内改变<br>10cycles maintain T1 and T2 for 30 minutes each mone cycle<br>每次循环30分钟共10次 | MIL-STD-202F<br>Method 107 Condition A |
| 5  | RESISTANCE TO SOLDER HEAT (耐焊接热)                  | Solder Temperature: 260°C ±5°C<br>焊槽温度:260°C ±5°C<br>Time: 10±1 Seconds<br>时间: 10±1秒  | MIL-STD-202F<br>Method 210E            |
| 6  | Solderability(可焊性)                                | The solder pot temperature is 245±5°C , dwell time 5±0.5<br>245±5°C焊锡槽浸润5±0.5秒  | J-STD-002B                             |
| 7  | Drop Test (落下试验)                                  | 3 Times Free Fall from 75cm height table to 3cm thickness hard wood board<br>从75cm高度3次跌落到3cm厚硬质木板上  | JIS C6701                              |
| 8  | MECHANICAL SHOCK (机械冲击)                           | Half sine wave,1000 G<br>半正弦波,加速度1000G<br>3 Times for all 3 directions<br>X、Y、Z 三个相互垂直方向各三次   | MIL-STD-202F<br>Method 213B            |
| 9  | Vibration (机械振动)                                  | Frequency Range: 10Hz~55Hz<br>频率范围: 10Hz~55Hz<br>Amplitude: 0.75mm<br>振幅: 0.75mm<br>2 Hours in each direction, total 6 Hours<br>X、Y、Z 三个相互垂直方向各振动2小时  | MIL-STD-883E<br>Method 2007.3          |
| 10 | Leakage Test (气密性)                                | Take measurements with a helium Leakage detector<br>氦质检漏<br>Leakage Rate≤1×10 <sup>-3</sup> Pa cm <sup>3</sup> /s<br>漏率≤1×10 <sup>-3</sup> Pa cm <sup>3</sup> /s  | MIL-STD-883E                           |