

# 深圳市雅晶鑫电子有限公司

Shenzhen Yajingxin Electron Co.,Ltd

## 产品规格书

SPECIFICATION FOR PRODUCT

品 名  
PARTNAME OSC SMD 2016

规 格  
SPECIFICATION 25.000MHz / 1.62~3.63V

客 户  
CUSTOMER

客户 料号  
CUSTOMER P/N

雅晶鑫 料号  
TONGJING P/N G201625MUBCE20

日 期  
DATE 2024 年 08 月 19 日

编 号  
NUMBER T240830002

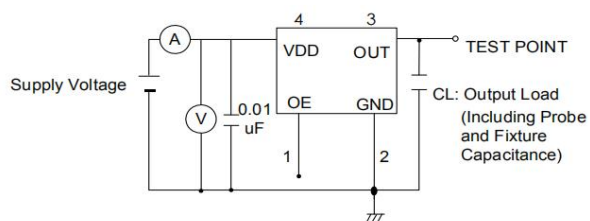
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# 深圳市雅晶鑫电子有限公司

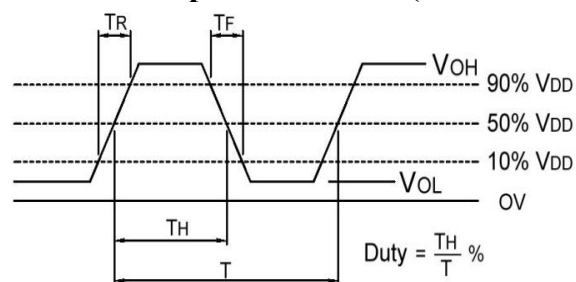
Shenzhen Yajingxin Electron Co.,Ltd

| DESCRIPTION |                              |           | CONTENTS                            |
|-------------|------------------------------|-----------|-------------------------------------|
| 1           | Holder Type                  | 封装盒型      | SMD 2016                            |
| 2           | Nominal Frequency            | 标称频率      | 25.000MHz                           |
| 3           | Frequency Tolerance @25℃ ±2℃ | 频率公差      | ±10ppm                              |
| 4           | Operable Temperature Range   | 工作温度      | -40℃ ~ +85℃                         |
| 5           | Output Load                  | 输出负载      | 15 pF                               |
| 6           | Supply Voltage               | 工作电压      | 1.62~3.63Vdc                        |
| 7           | Output Waveform              | 输出波形      | CMOS                                |
| 8           | Current Comsuption           | 电流消耗      | Operating 10mA                      |
|             |                              |           | Standby 10uA                        |
| 9           | Duty Cycle                   | 占空比       | 50±10%                              |
| 10          | Output Rise/Fall Time        | 输出上升/下降时间 | 5ns                                 |
| 11          | Output Level                 | 输出电平      | Output High (Logic “1” ) 0.9Vdd MIN |
|             |                              |           | Output Low (Logic “0” ) 0.1Vdd MAX  |
| 12          | Enable Delay Time            | 使能延迟      | 150 uS MAX                          |
| 13          | Storage Temperature          | 储存温度      | -55℃ ~ +125℃                        |
| 14          | Aging Rate                   | 年老化率      | ±3ppm/Year                          |
| 15          | Start-up Time                | 启动时间      | 5ms                                 |

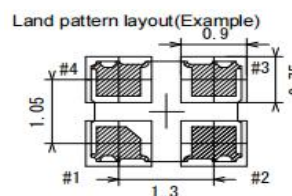
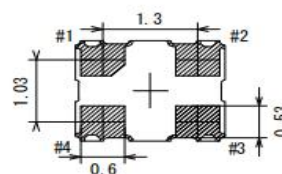
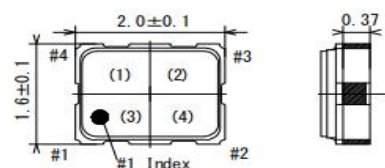
## ● Test Circuit (CMOS Load)



## ● Output Waveform (CMOS Load)



## ● Outline Dimensions(unit: mm)



unit: mm

Dimensional Tolerance:  $\pm$ 0.1

(Unless otherwise noted)

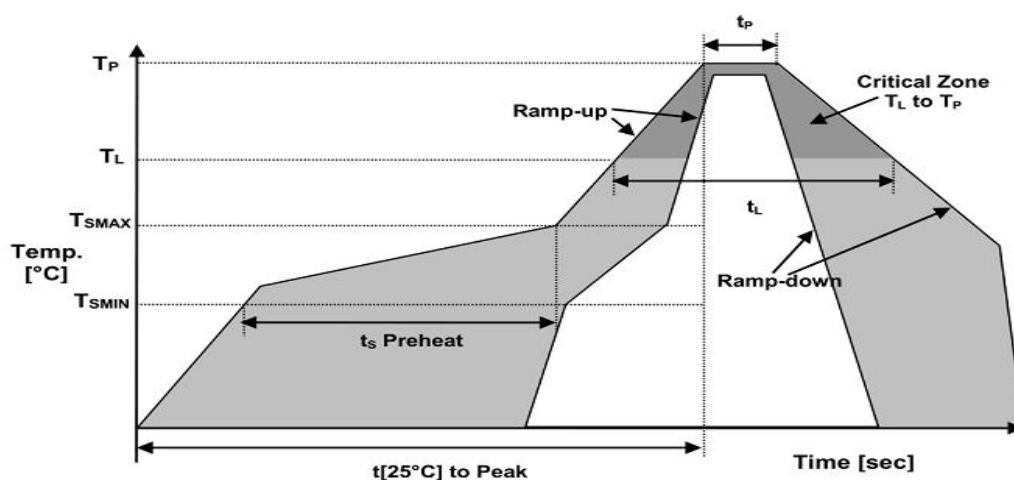
### Pin Connection

| Name | Connection |
|------|------------|
| 1    | E/D        |
| 2    | GND        |
| 3    | Fout       |
| 4    | Vdd        |

### Function

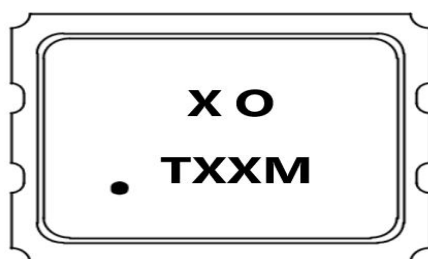
|            |                  |
|------------|------------------|
| Pin1 Input | Pin3 Output      |
| High level | Oscillation      |
| Low level  | Oscillation stop |

## ● Reflow soldering



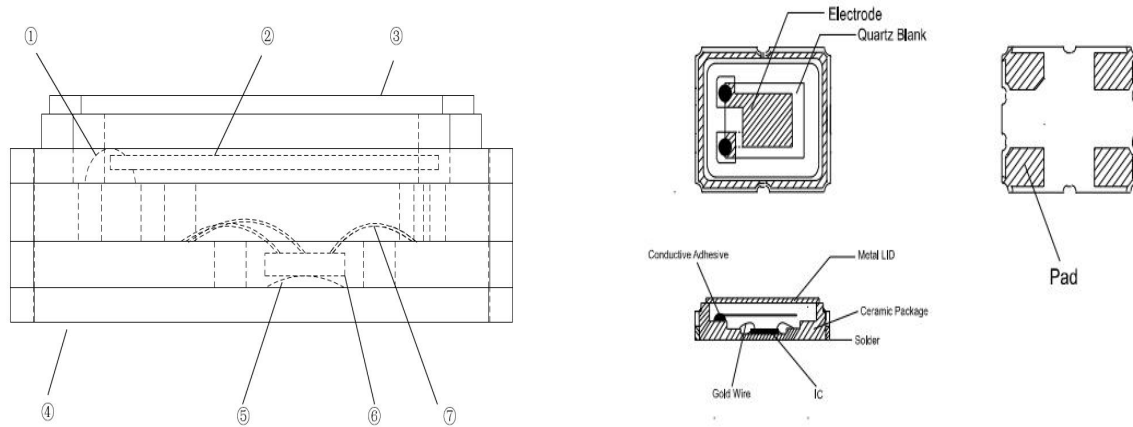
| Reflow Profile                                   |                                         |             |
|--------------------------------------------------|-----------------------------------------|-------------|
| Temperature MIN Preheat                          | $T_{SMIN}$                              | 150°C       |
| Temperature MAX Preheat                          | $T_{SMAX}$                              | 200°C       |
| Time ( $T_{SMIN} - T_{SMAX}$ )                   | $t_s$                                   | 60-180sec   |
| Temperature                                      | $T_L$                                   | 217°C       |
| Peak Temperature                                 | $T_P$                                   | 260°C       |
| Ramp-up Rate                                     | $R_{UP}$                                | 3°C/sec max |
| Ramp-Down Rate                                   | $R_{DOWN}$                              | 6°C/sec max |
| Time within 5°C of Peak Temperature              | $t_P$                                   | 10sec       |
| Time $t(25^{\circ}\text{C})$ to Peak Temperature | $t(25^{\circ}\text{C}) \text{ to Peak}$ | 480sec      |
| Time                                             | $t_L$                                   | 60-150sec   |

## ● Marking



XO: Oscillator Code  
 T: TJ Logo  
 XX: Frequency Code  
 M: Frequency Units  
 ●: Pin1 Index

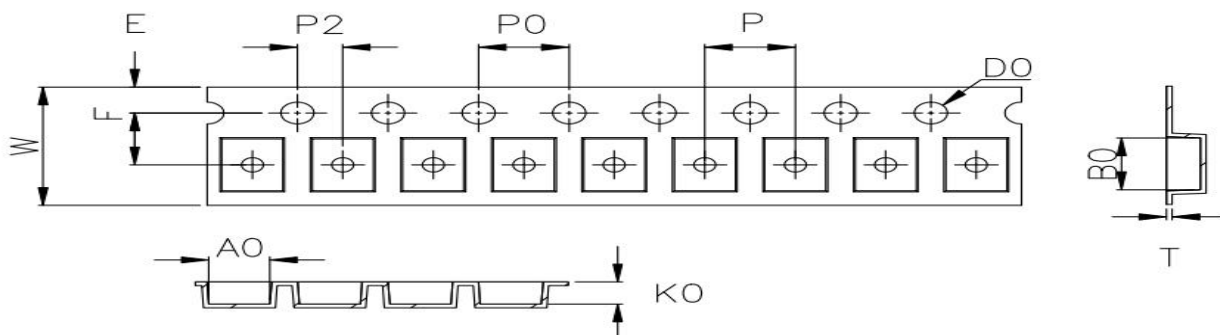
## ● Structure Illustration



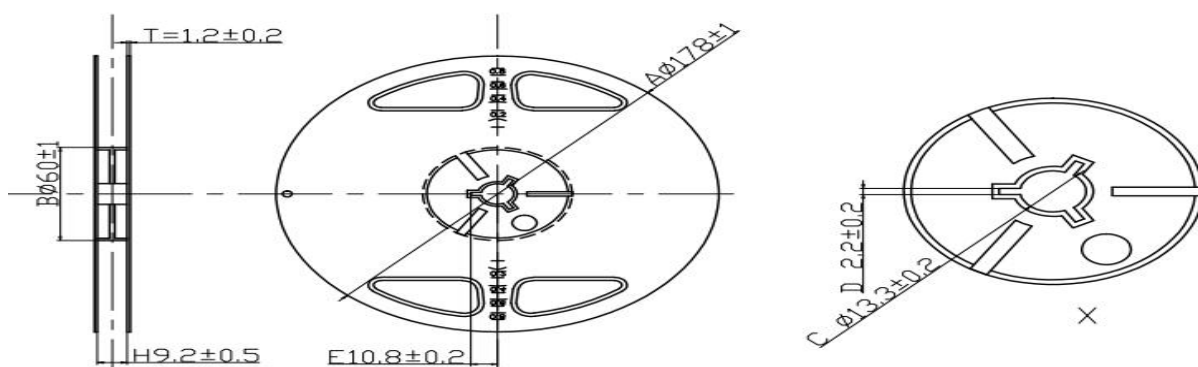
| NO. | Components                      | Materials           |
|-----|---------------------------------|---------------------|
| 1   | Conductive Adhesive             | Ag+Silicone resin   |
| 2   | Crystal Blank                   | SiO <sub>2</sub>    |
| 3   | Lid                             | Fe-Ni-Co Alloy      |
| 4   | Base                            | Ceramic+Noble Metal |
| 5   | Conductive Adhesive of Solid IC | Ag+Silicone resin   |
| 6   | IC                              | Si                  |
| 7   | Gold wire                       | Au                  |

● Package

*Tape Dimensions(unit :mm)*



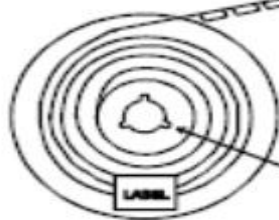
|   |                 |    |                     |    |                 |
|---|-----------------|----|---------------------|----|-----------------|
| W | $8.00 \pm 0.30$ | P  | $4.00 \pm 0.05$     | A0 | $1.90 \pm 0.05$ |
| E | $1.75 \pm 0.05$ | P0 | $4.00 \pm 0.05$     | K0 | $0.65 \pm 0.05$ |
| F | $3.50 \pm 0.05$ | P2 | $2.00 \pm 0.05$     | B0 | $2.30 \pm 0.05$ |
| T | $0.25 \pm 0.03$ | D0 | $1.55 + 0.10 / - 0$ |    |                 |



Begin



Start



Close



3000pcs-product Tape