

承 认 书

SPECIFICATION FOR APPROVAL

客户名称: Customer _____

货 名: Description SMD5032 石英晶体谐振器

客户料号: Part No _____

物料编号: Code No S5327000201040频 率: Frequency 27.000MHZ日 期: Date 2023-04-19备 注: RoHS compliance with Directive (EU) 2015/863

| 制作(Prepare by) | 检查(Check by) | 批准 (Approve by) |
|----------------|--------------|-----------------|
| 江丹娜 | 甘瑛 | 张刚 |

| | |
|-----------------------------|--|
| 客户批准 Approve by customer | |
| 批准日期 Approval date | |

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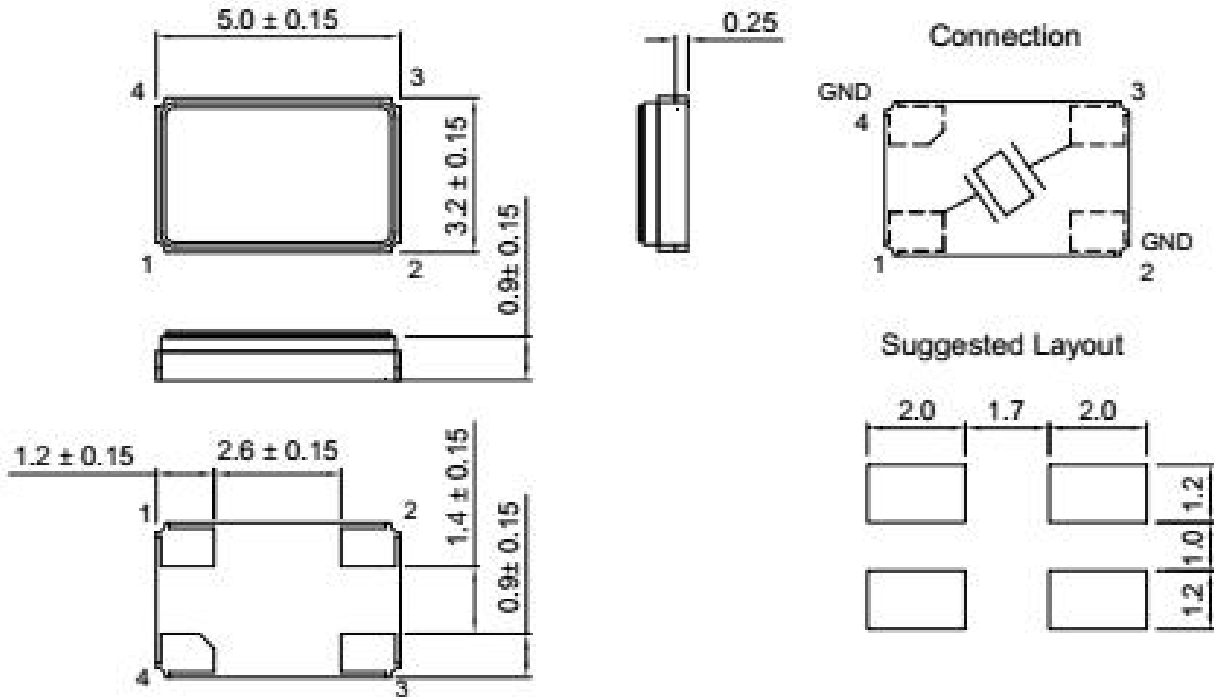
1、 Specifications

| | | |
|----|--------------------------------------|------------------------------|
| 1 | 规格型号 Holder Type | SMD5032 |
| 2 | 标称频率 Nominal Frequency | 27.000MHz |
| 3 | 振动模式 Mode of Oscillation | Fundamental |
| 4 | 调整频差 Frequency Tolerance at 25°C | ±10ppm |
| 5 | 温度频差 Temperature Frequency Stability | ±30ppm |
| 6 | 工作温度 Operating Temperature Range | -40~85°C |
| 7 | 贮存温度 Storage Temperature Range | -40~90°C |
| 8 | 负载电容 Load Capacitance | 20pF |
| 9 | 静电容 Shunt capacitance | ≤7 pF |
| 10 | 等效电阻 Equivalent Series Resistance | 60 Ω Max |
| 11 | 激励功率 Drive Level | 10uW |
| 12 | 绝缘阻抗 Insulation Resistance | 500MΩ/100V±15V _{DC} |
| 13 | 年老化率 Aging | ±3ppm/First year |
| 14 | 测试仪器 Test machine | 250B |

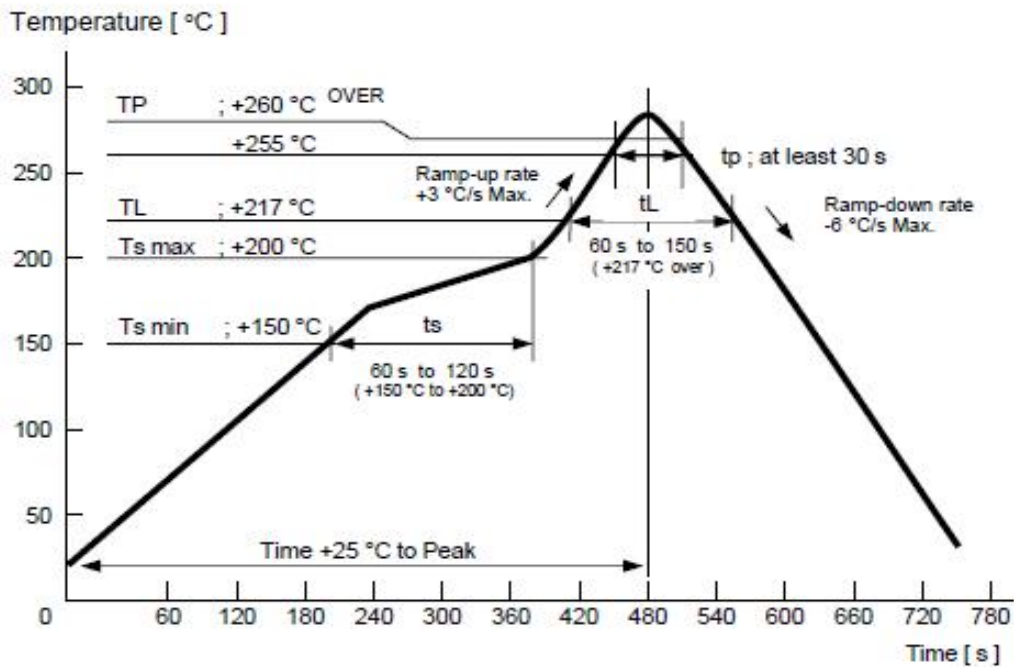
2. Frequency stability over temperature range (AT cut)

| Temperature Range | Frequency Stability | | | | | | | |
|-------------------|---------------------|-------|---------|--------|--------|--------|--------|--------|
| | ±3PPM | ±5PPM | ±7.5PPM | ±10PPM | ±20PPM | ±30PPM | ±50PPM | ±70PPM |
| 0°C~+50°C | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| -10°C~+60°C | | | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| -20°C~+70°C | | | | ☆ | ☆ | ☆ | ☆ | ☆ |
| -30°C~+70°C | | | | | ☆ | ☆ | ☆ | ☆ |
| -40°C~+85°C | | | | | | ☆ | ☆ | ☆ |
| -40°C~+125°C | | | | | | ☆ | ☆ | ☆ |

3. Dimensions (unit:mm)



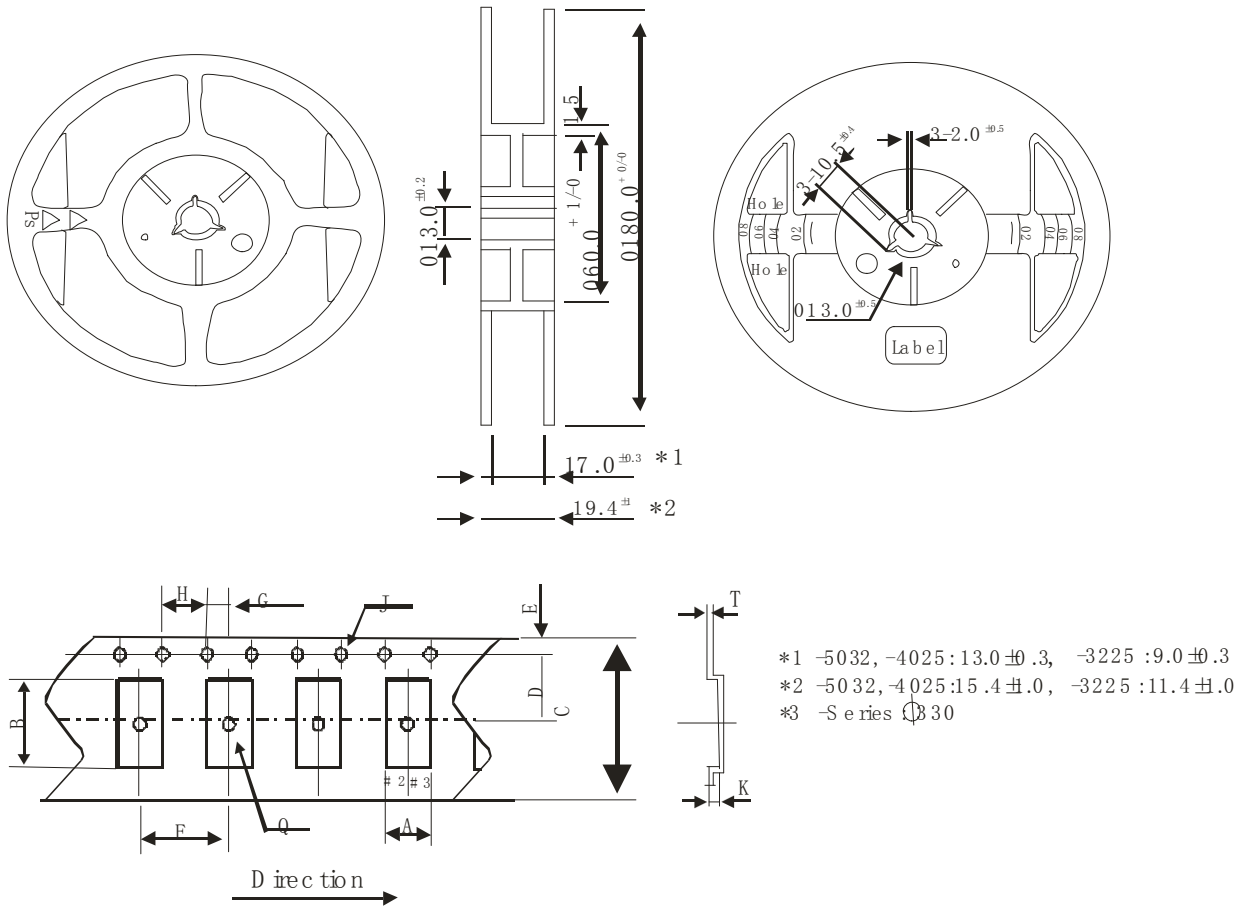
4.Recommended Reflow profile



5、Reliability specifications

| NO | Item | Condition | Standard |
|----|------------------------------|--|--|
| 1. | Drop Test | Free drop from 75 cm height on a hard wooden board for 3 times. (Board is thickness more than 30 mm.) | Frequency change: ≤5ppm Rr as specification |
| 2. | Mechanical Shock | Half sine wave, 1000G, 0.5mS, three times for all 3 directions | Frequency change: ≤5ppm Rr as specification |
| 3. | Vibration | Frequency range:10~55hz Amplitude:1.52mm Sweep time:1mintutes perpendicular axes each test time:2Hrs | Frequency change: ≤5ppm Rr as specification |
| 4. | Solderability | Temperature:245℃±5℃ Immersing depth:0.5mm minimum Immersion time:5±1sec. Flux:Rosin resin methyl alcohol solvent(1:4) | 90% exhibit tin ok |
| 5. | Resistance to soldering heat | Test temperature:260℃±5℃ Test time :10±1sec. | Frequency change: ≤10ppm Rr as specification |
| 6. | High Temp & Humidity | 85±3℃ & RH85%, 500±12 hours | Frequency change: ≤10ppm Rr as specification |
| 7. | Low temperature storage | -40±3℃, 500±12 hours | Frequency change: ≤10ppm Rr as specification |
| 8. | High temperature storage | +85±3℃, 500±12 hours | Frequency change: ≤10ppm Rr as specification |
| 9. | Temperature cycling | -40±3℃/10min~+85±3℃/10min, 100cycles | Frequency change: ≤10ppm Rr as specification |

6、Packaging standard

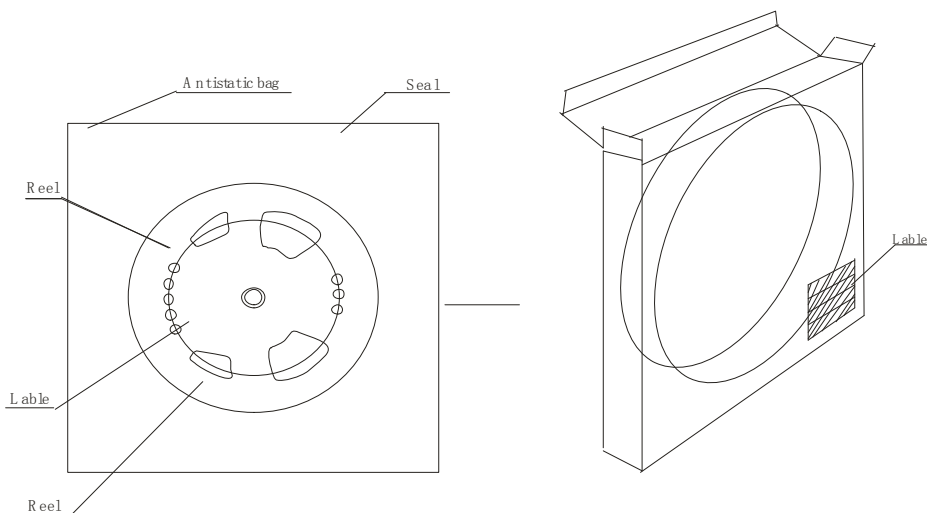


- Standard quantity of SMD -3225 : 3,000 pcs/reel
- Standard quantity of SN –Series : 4,000 pcs/reel
- Standard quantity of others : 1,000 pcs/reel
- Carrier tape : Antistatic material (PS)
- Each reel can be recycled

| | SMD-7050 SN-7050 | SMD-6032 SN-6032 | SMD-5032 | SMD -5032 | SMD-4025 | SMD-3225 |
|---|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|------------------------|
| A | 5.4 ^{±0.1} | 3.9 ^{±0.1} | 3.5 ^{±0.1} | 3.5 ^{±0.1} | 2.9 ^{±0.1} | 2.9 ^{±0.1} |
| B | 7.4 ^{±0.1} | 6.4 ^{±0.1} | 5.4 ^{±0.1} | 5.4 ^{±0.1} | 4.4 ^{±0.1} | 3.6 ^{±0.1} |
| C | 16.0 ^{±0.2} | 16.0 ^{±0.2} | 12.0 ^{±0.2} | 12.0 ^{±0.2} | 10.0 ^{±0.2} | 8.0 ^{±0.2} |
| D | 7.5 ^{±0.1} | 7.5 ^{±0.1} | 5.5 ^{±0.1} | 5.5 ^{±0.1} | 5.5 ^{±0.1} | 5.5 ^{±0.1} |
| E | 1.75 ^{±0.1} | 1.75 ^{±0.1} | 1.75 ^{±0.1} | 1.75 ^{±0.1} | 1.75 ^{±0.1} | 1.75 ^{±0.1} |
| F | 8.0 ^{±0.1} | 8.0 ^{±0.1} | 8.0 ^{±0.1} | 8.0 ^{±0.1} | 4.0 ^{±0.1} | 4.0 ^{±0.1} |
| G | 2.0 ^{±0.1} | 2.0 ^{±0.1} | 2.0 ^{±0.1} | 2.0 ^{±0.1} | 2.0 ^{±0.1} | 2.0 ^{±0.1} |
| H | 4.0 ^{±0.1} | 4.0 ^{±0.1} | 4.0 ^{±0.1} | 4.0 ^{±0.1} | 4.0 ^{±0.1} | 4.0 ^{±0.1} |
| J | 1.55 ^{±0.05} | 1.55 ^{±0.05} | 1.5 ^{+0.1/0} | 1.5 ^{+0.1/0} | 1.5 ^{±0.1/0} | 1.5 ^{±0.1/0} |
| K | 1.4 ^{±0.1} | 1.5 ^{±0.1} | 1.0 ^{±0.1} | 1.5 ^{±0.1} | 0.9 ^{±0.1} | 0.9 ^{±0.1} |
| Q | 1.6 ^{+0.1/0} | 1.55 ^{±0.05} | 1.6 ^{±0.1} | 1.6 ^{±0.1} | 1.5 ^{±0.1/0} | 1.5 ^{±0.1/0} |
| T | 0.3 ^{±0.05} | 0.3 ^{±0.05} | 0.25 ^{±0.05} | 0.25 ^{±0.05} | 0.25 ^{±0.05s} | 0.25 ^{±0.05s} |

| Item | | Empty Space |
|--------------|---------------|----------------|
| Tapa Leader | Cover Tape | Min.500mm |
| | Empty Pockets | Min.20 pockets |
| Tape Trailer | Cover Tape | Min.0mm |
| | Empty Pockets | Min.40mm |

7. Inner carton



7-1. MARKING

- (1) Marking Labels are affixed to reel, inner carton and outer carton.
- (2) Each label contains the following information.
 - (a) Manufacture's name or symbol
 - (b) Parts name or type
 - (c) Frequency
 - (d) Quantity
 - (e) Reel number
 - (f) Manufacturer's code (EIAJ code)

7-2. QUANTITY

1000pcs/reel

7-3. STORAGE ENVIRONMENT

- ✧ Storage the reel at normal temperature and humidity
- ✧ Open the packing just before using
- ✧ Do not expose the sun
- ✧ Do not storage with some erosive chemicals
- ✧ Nothing is allowed to put on the reel or carton to prevent mechanical damage

7-4. HANDLING

- ✧ Handle with care to prevent the damage of tape, reel and products.