

承 认 书

SPECIFICATION FOR APPROVAL

客户名称: Customer _____

货 名: Description SMD3225 石英晶体谐振器

客户料号: Part No _____

物料编号: Code No S3232000091040

频 率: Frequency 32.000MHz

日 期: Date 2020-05-23

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 | SMD3225 |
| 2 | 标称频率 Nominal Frequency | 32.000MHz |
| 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 | 9pF |
| 9 | 静电容 Shunt capacitance | ≤7 pF |
| 10 | 等效电阻 Equivalent Series Resistance | 40 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 |

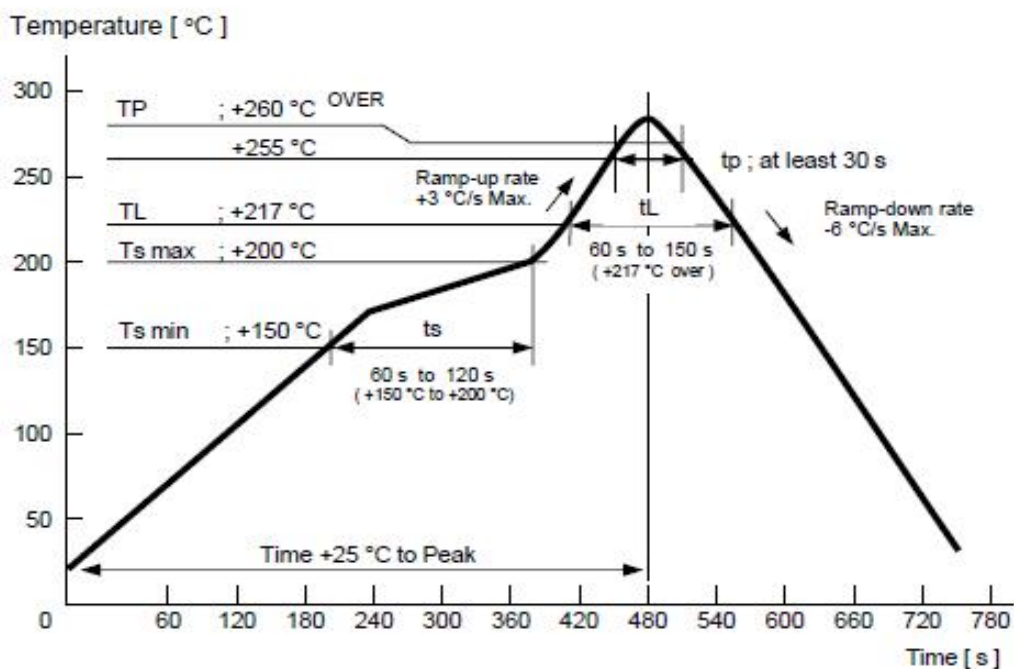
2. Frequency stability over temperature range (AT cut)

| 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)



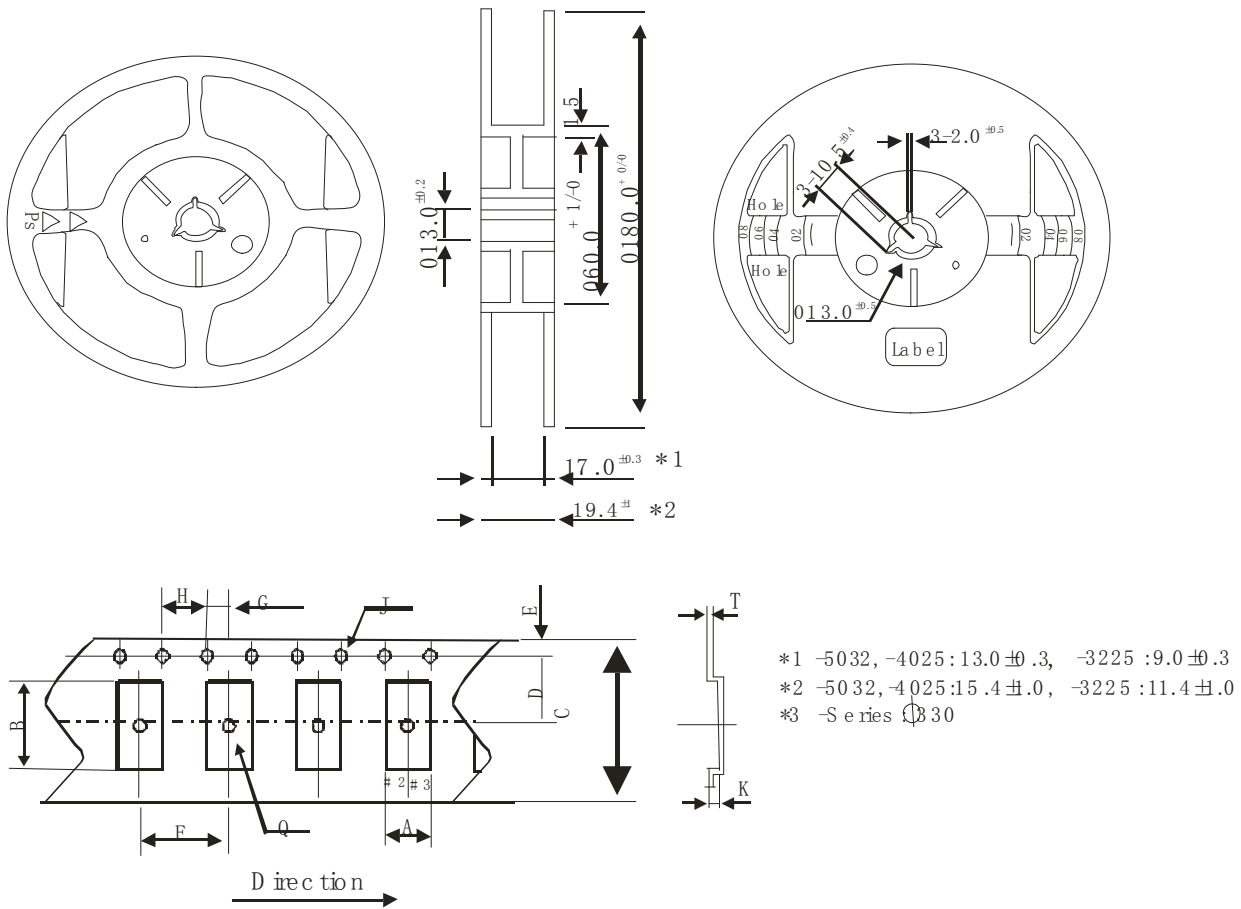
4.Recommended Reflow profile



5. Reliability specifications

| NO | Item | Condition | Standard |
|----|------------------------------|--|--|
| 1. | Drop Test | Free drop from 50cm 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°C ± 5°C 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°C ± 5°C Test time :10 ± 1sec. | Frequency change: ≤10ppm Rr as specification |
| 6. | High Temp & Humidity | 85±3°C & RH85%, 500 ± 12 hours | Frequency change: ≤10ppm Rr as specification |
| 7. | Low temperature storage | -40±3°C, 500 ± 12 hours | Frequency change: ≤10ppm Rr as specification |
| 8. | High temperature storage | +85±3°C, 500 ± 12 hours | Frequency change: ≤10ppm Rr as specification |
| 9. | Temperature cycling | -40±3°C/10min~+85±3°C/10min, 100cycles | Frequency change: ≤10ppm Rr as specification |

6、Packaging standard



- Standard quantity of ST -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

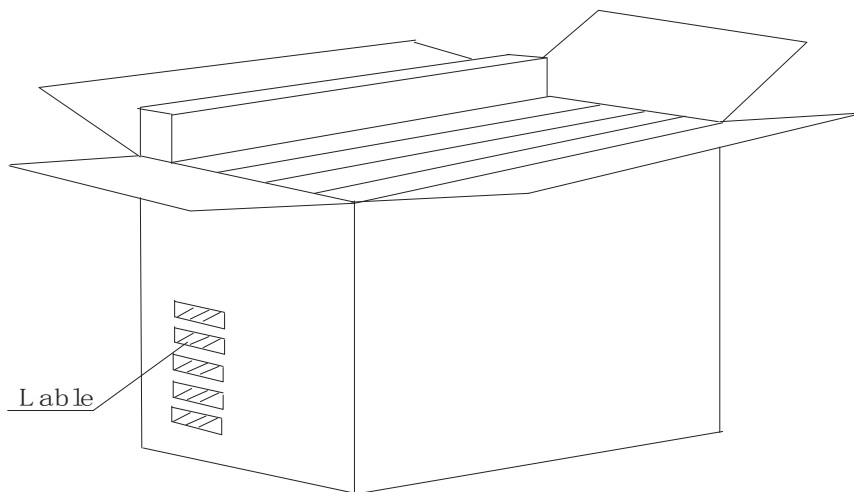
| | SJ-7050 SN-7050 | SJ-6032 SN-6032 | SJ-5032 | SJ -5032 | SJ-4025 | SJ-3225 |
|---|--------------------|--------------------|----------------|----------------|-----------------|-----------------|
| A | $5.4^{±0.1}$ | $3.9^{±0.1}$ | $3.5^{±0.1}$ | $3.5^{±0.1}$ | $2.9^{±0.1}$ | $2.9^{±0.1}$ |
| B | $7.4^{±0.1}$ | $6.4^{±0.1}$ | $5.4^{±0.1}$ | $5.4^{±0.1}$ | $4.4^{±0.1}$ | $3.6^{±0.1}$ |
| 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



OUTET 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

3000pcs/reel (max.5reels in outer carton)

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.

单击下面可查看定价，库存，交付和生命周期等信息

[>>JGHC\(晶光华\)](#)