

# 承 认 书

## SPECIFICATION FOR APPROVAL

客户名称: Customer \_\_\_\_\_

货 名: Description SMD 3225 GLASS 石英晶体谐振器

客户料号: Part No \_\_\_\_\_

物料编号: Code No G3232000121060A

频 率: Frequency 32.000MHz

日 期: Date 2020-06-11

备 注: RoHS 豁免条款 7 (a)

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

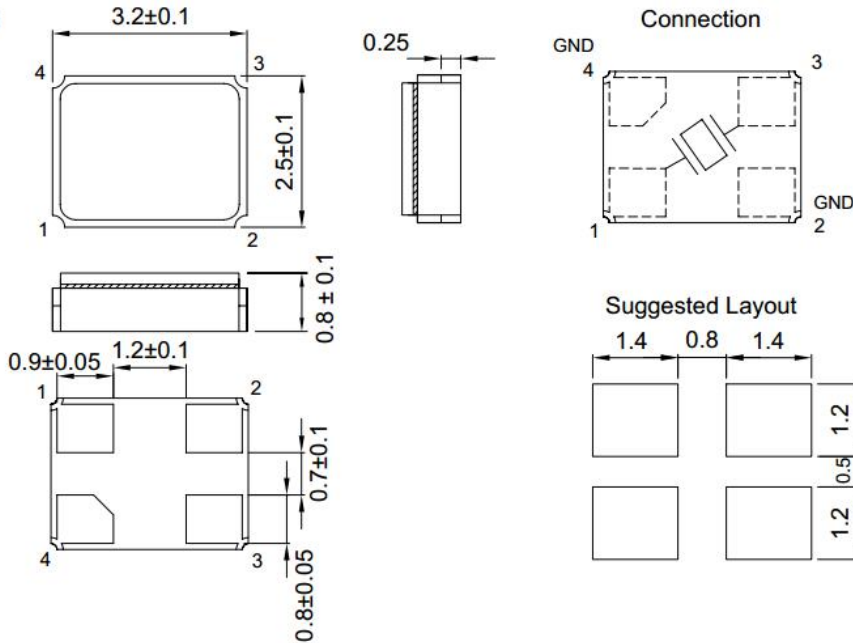
1	规格型号 <b>Holder Type</b>	SMD GLASS 3225
2	标称频率 <b>Nominal Frequency</b>	32.000MHz
3	振动模式 <b>Mode of Oscillation</b>	Fundamental
4	调整频差 <b>Frequency Tolerance at 25°C</b>	±10ppm
5	温度频差 <b>Temperature Frequency Stability</b>	±30ppm
6	工作温度 <b>Operating Temperature Range</b>	-40~85°C
7	贮存温度 <b>Storage Temperature Range</b>	-40~90°C
8	负载电容 <b>Load Capacitance</b>	12 pF
9	静电容 <b>Shunt capacitance</b>	≤7 pF
10	等效电阻 <b>Equivalent Series Resistance</b>	60Ω Max
11	激励功率 <b>Drive Level</b>	10 uW
12	绝缘阻抗 <b>Insulation Resistance</b>	500MΩ/100V±15V <sub>DC</sub>
13	老化率 <b>Aging</b>	±3ppm/First year
14	测试仪器 <b>Test machine</b>	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						☆	☆	☆

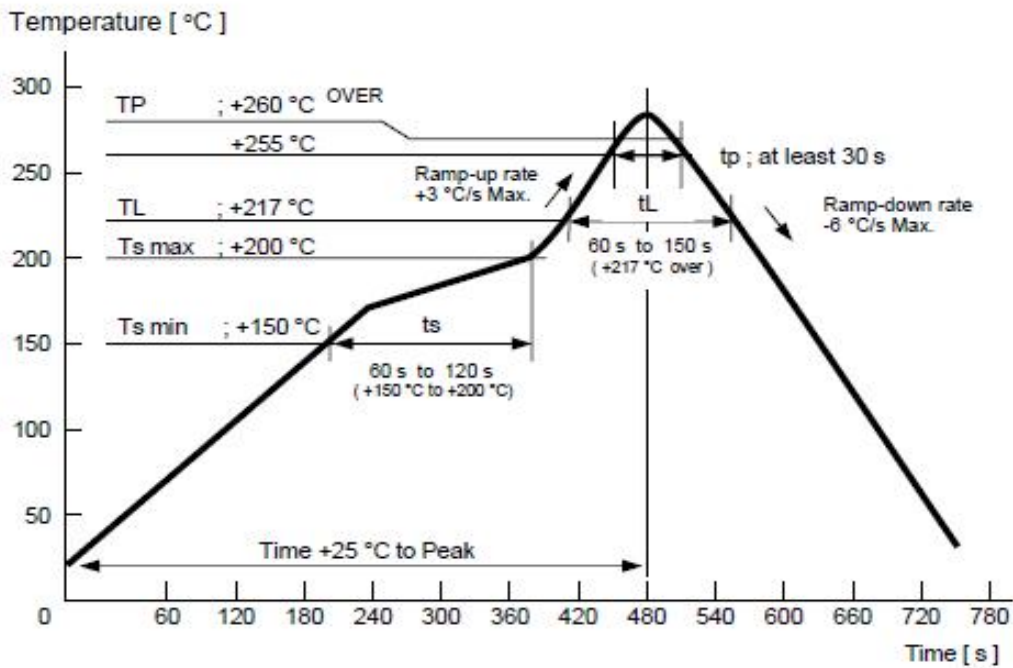
### 3. Dimensions (unit:mm)

**■ DIMENSIONS**  
(Unit:mm)



\*Coplanarity of solderable areas Camber 0.10 mm Max

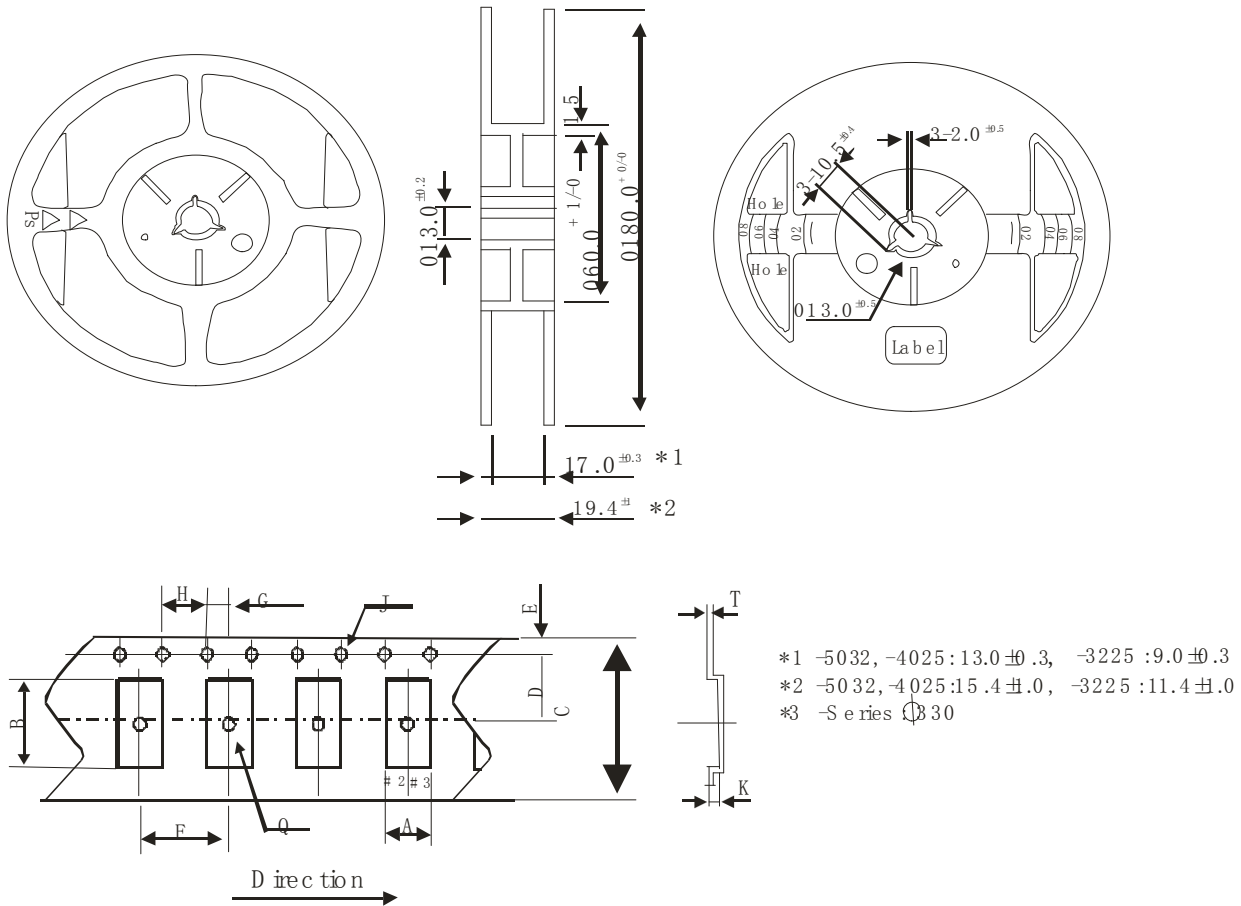
### 4. Recommended Reflow profile



## 5、Reliability specifications(conform to AEC-Q200)

NO.	Item	Test Condition	Reference Doc.
1.	Drop	1m height ,hard wooden board(board thickness:30mm min.), 3times	IEC-68-2-32
2.	Low temperature storage	-40±3℃,1000 hours, unpowered.	MIL-STD-883E
3.	High temperature storage	+85±3℃,1000 hours, unpowered.	MIL-STD-202 Method 108
	(Operation life)	+85±3℃,1000 hours, power	
4.	Temperature cycling	Total 1000 cycles of the following temperature cycle: -40±3 to 125±3℃, Dwell time:15min	JESD 22 Method JA-104
5.	Moisture Resistance	20cycles(25~65℃, 80~100%RH),24hrs/cycles	MIL-STD-202 Method 106
6.	Biased Humidity	+85±3℃ & 85% RH, 1000 hours	MIL-STD-202 Method 103
7.	Mechanical Shock	Condition C: Peak value:100g's      normal duration:6ms Waveform:half sine      velocity change:12.3ft/sec	MIL-STD-202 Method 213
8.	Vibration	5g's for 20 minutes 12 cycles each of 3 orientations Test form 10~2000Hz	MIL-STD-202 Method 204
9.	Resistance to soldering heat	Pre-heat temperature:125℃      Pre-heat time:60~120s. Test temperature:260± 5℃      Test time:10± 1sec.	MIL-STD-202 Method 210
10.	Thermal shock	-55±3℃~+125±3℃,Cycles:300, Dwell time:5minutes, Max. transfer time:20mintutes air-air	MIL-STD-202 Method 107
11.	Solderability	Temperature :245 ℃ ± 5℃ Immersing depth:0.5 mm min.Immersion time:5 ± 1 sec. Flux Rosin resin methyl alcohol      solvent ( 1 : 4 )	J-STD-002
12.	Terminal strength	Mount on PCB board and shear strength 1.8kg for 60sec.	AEC-Q200-006

## 6、Packaging standard

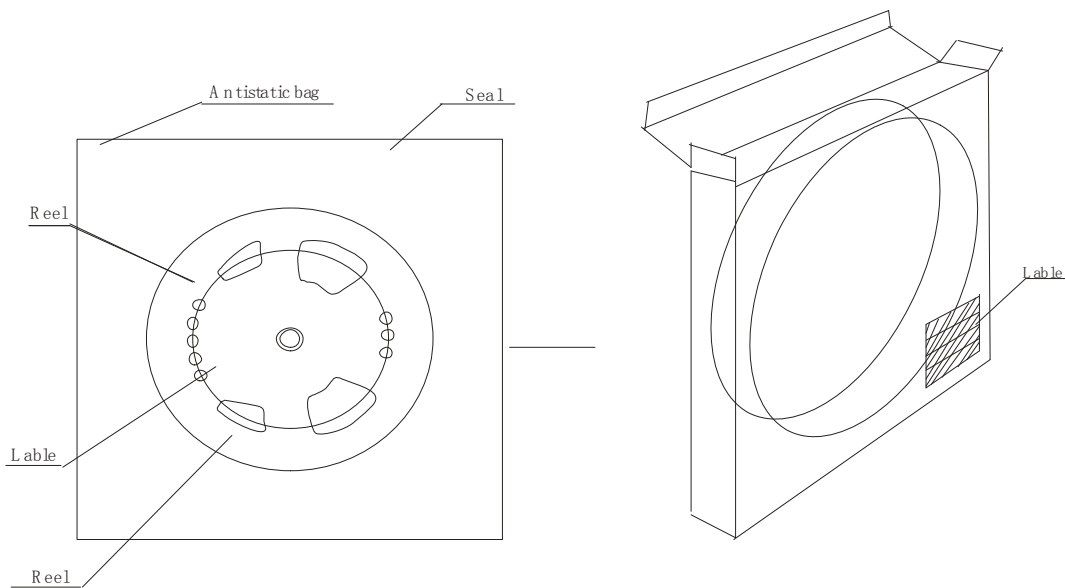


- Standard quantity of ST -3225 : 3,000 pcs/reel
- Standard quantity of SN -Series : 4,000 pcs/reel
- Standard quantity of others : 1,000 pcs/reel
- Carrier tape : Antistatic material (PS)
- Each reel can be recycled

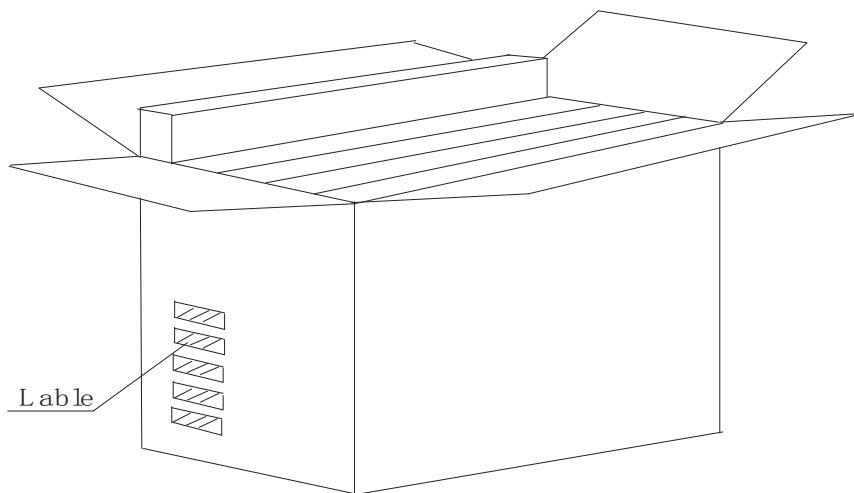
	SJ-7050 SN-7050	SJ-6032 SN-6032	SJ-5032	SJ -5032	SJ-4025	SJ-3225
A	5.4 <sup>±0.1</sup>	3.9 <sup>±0.1</sup>	3.5 <sup>±0.1</sup>	3.5 <sup>±0.1</sup>	2.9 <sup>±0.1</sup>	2.9 <sup>±0.1</sup>
B	7.4 <sup>±0.1</sup>	6.4 <sup>±0.1</sup>	5.4 <sup>±0.1</sup>	5.4 <sup>±0.1</sup>	4.4 <sup>±0.1</sup>	3.6 <sup>±0.1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

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\(晶光华\)](#)