

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 _____ G3232000121040

频 率: Frequency _____ 32.000MHz

日 期: Date _____ 2021-5-26

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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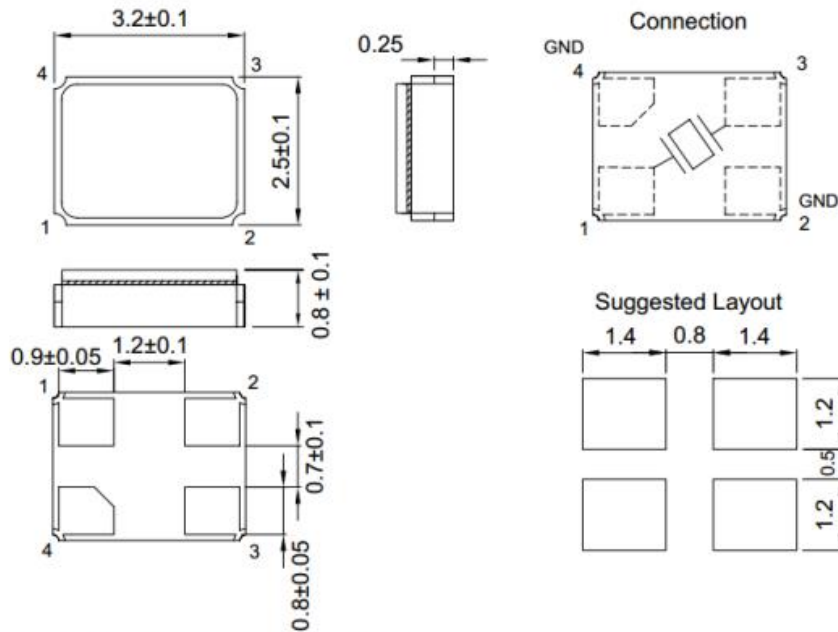
1、 Specifications

1	规格型号 Holder Type	SMD GLASS 3225
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℃	±10ppm
5	温度频差 Temperature Frequency Stability	±30ppm
6	工作温度 Operating Temperature Range	-40~85℃
7	贮存温度 Storage Temperature Range	-40~90℃
8	负载电容 Load Capacitance	12pF
9	静电容 Shunt capacitance	≤7 pF
10	等效电阻 Equivalent Series Resistance	40Ω Max
11	激励功率 Drive Level	10 uW
12	绝缘阻抗 Insulation Resistance	500MΩ/100V±15V _{DC}
13	老化率 Aging	±3ppm/First year
14	测试仪器 Test machine	250B

2.Frequency stability over temperature range (AT cut)

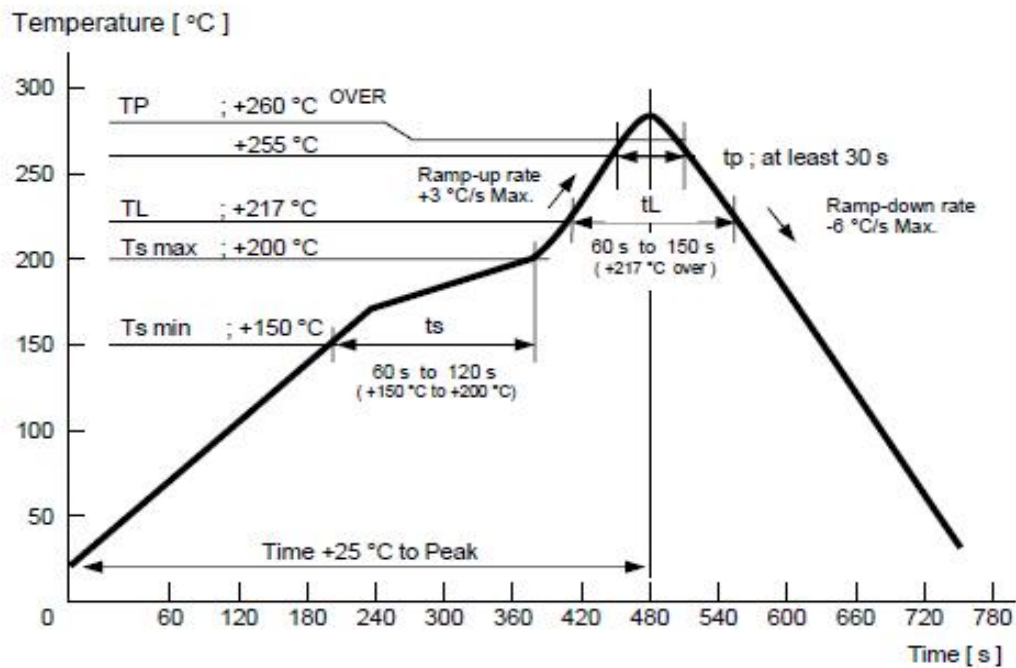
Temperature Range	Frequency Stability							
	±3PPM	±5PPM	±7.5PPM	±10PPM	±20PPM	±30PPM	±50PPM	±70PPM
0℃~+50℃	☆	☆	☆	☆	☆	☆	☆	☆
-10℃~+60℃			☆	☆	☆	☆	☆	☆
-20℃~+70℃				☆	☆	☆	☆	☆
-30℃~+70℃					☆	☆	☆	☆
-40℃~+85℃						☆	☆	☆
-40℃~+125℃						☆	☆	☆

3. Dimensions (unit:mm)



*Coplanarity of solderable areas Camber 0.10 mm Max

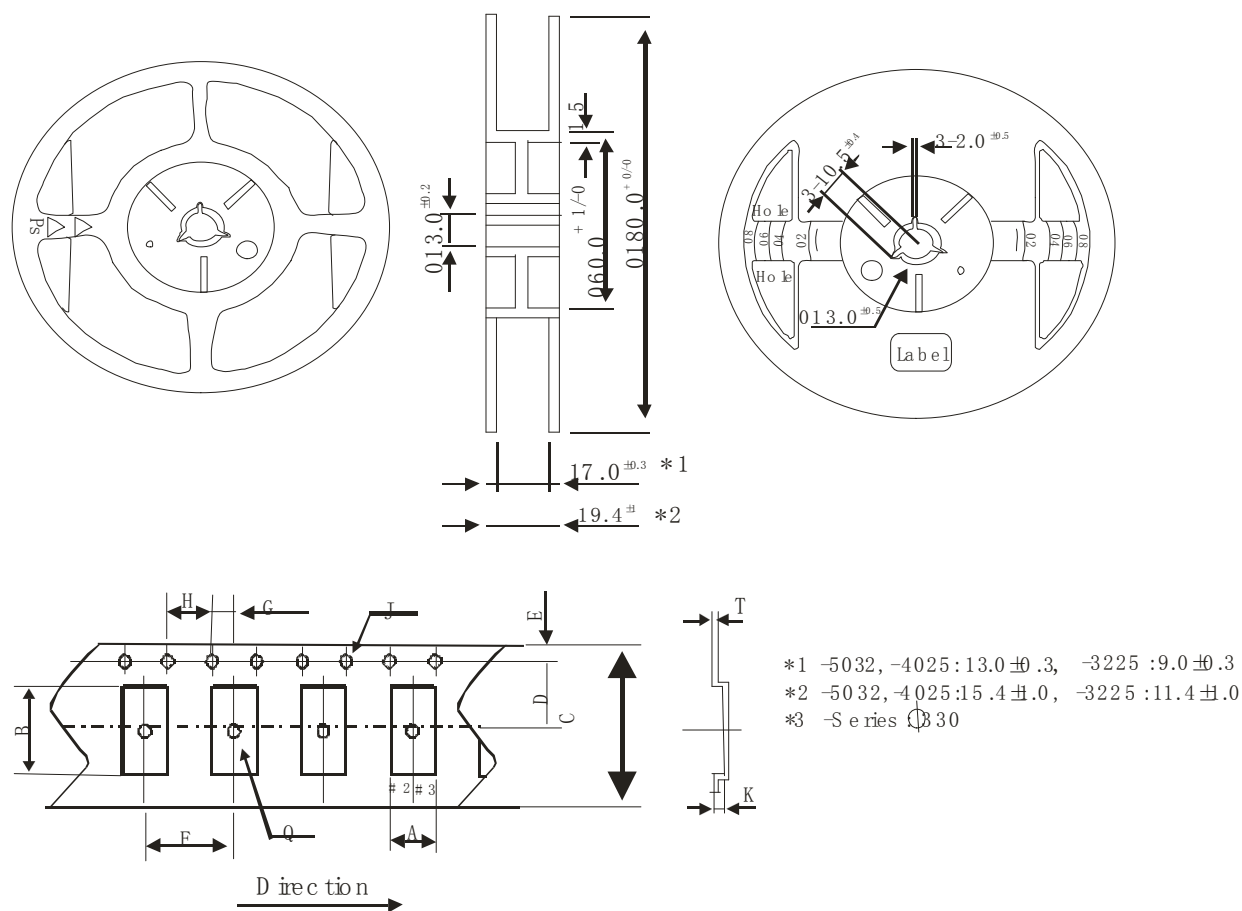
4.Recommended Reflow profile



5、Reliability specifications

	Item	Condition	Standard
1.	Drop characteristics	Free drop from 75cm height on a hard wooden board for 3 times. (Board is thickness more than 30 mm.)	Frequency change: $\leq 5\text{ppm}$ Rr as specification
2..	Shake characteristics	Shake frequency 10~55Hz, cyc1~2 minutes, swing 1.5mm, direction x/y/z, all 30 minutes, test after 1 hours.	Frequency change: $\leq 5\text{ppm}$ Rr as specification
3.	Airproof characteristics	Put crystal into the pressure cabin with alcohol, keep pressure 0.4~0.5mpa 10 minutes, then take out and blow for 5 minutes	$IR \geq 500M\Omega$
4.	Weld characteristics	$260 \pm 5^{\circ}\text{C}$, 3 seconds	90% exhibit tin ok
5.	Humidity characteristics	$+40 \pm 2^{\circ}\text{C}$ & 90%~95% R.H. 250 hours	Frequency change: $\leq 5\text{ppm}$ Rr as specification
6.	Low temperature characteristics	$-30 \pm 2^{\circ}\text{C}$, 250 hours, put in room temperature, test after 1 hours.	Frequency change: $\leq 5\text{ppm}$ Rr as specification
7.	High temperature characteristics	$+85 \pm 2^{\circ}\text{C}$, 250 hours, put in room temperature, test after 1 hours.	Frequency change: $\leq 5\text{ppm}$ Rr as specification
8.	Temperature cycling	$-30 \pm 3^{\circ}\text{C}/30 \pm 3 \text{ min} \sim +85 \pm 2^{\circ}\text{C}/30 \pm 3 \text{ min}$, 5 cycles	Frequency change: $\leq 5\text{ppm}$ Rr as specification

6、Packaging standard

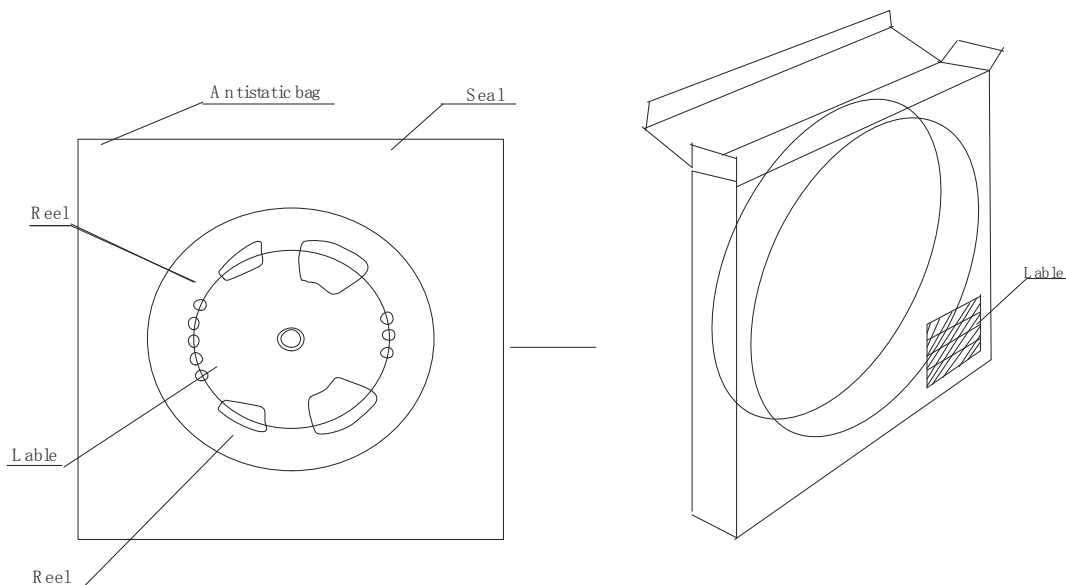


- **Standard quantity of SMD -3225 : 3,000 pcs/reel**
- **Standard quantity of SN –Series : 4,000 pcs/reel**
- **Standard quantity of others : 1,000 pcs/reel**
- **Carrier tape : Antistatic material (PS)**
- **Each reel can be recycled**

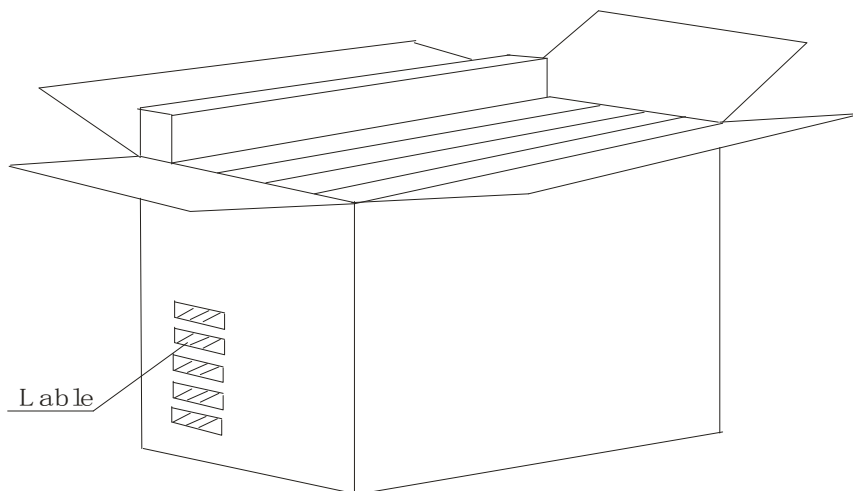
	SJ-7050 SN-7050	SJ-6032 SN-6032	SJ-5032	SJ -5032	SJ-4025	SMD-3225
A	5.4 ^{±01}	3.9 ^{±0.1}	3.5 ^{±0.1}	3.5 ^{±0.1}	2.9 ^{±0.1}	2.9 ^{±0.1}
B	7.4 ^{±0.1}	6.4 ^{±0.1}	5.4 ^{±0.1}	5.4 ^{±0.1}	4.4 ^{±0.1}	3.6 ^{±0.1}
C	16.0 ^{±0.2}	16.0 ^{±0.2}	12.0 ^{±0.2}	12.0 ^{±0.2}	10.0 ^{±0.2}	8.0 ^{±0.2}
D	7.5 ^{±0.1}	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.