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 S3250000091040

频　　率：Frequency 50.000MHZ

日　　期：Date 2023-04-18

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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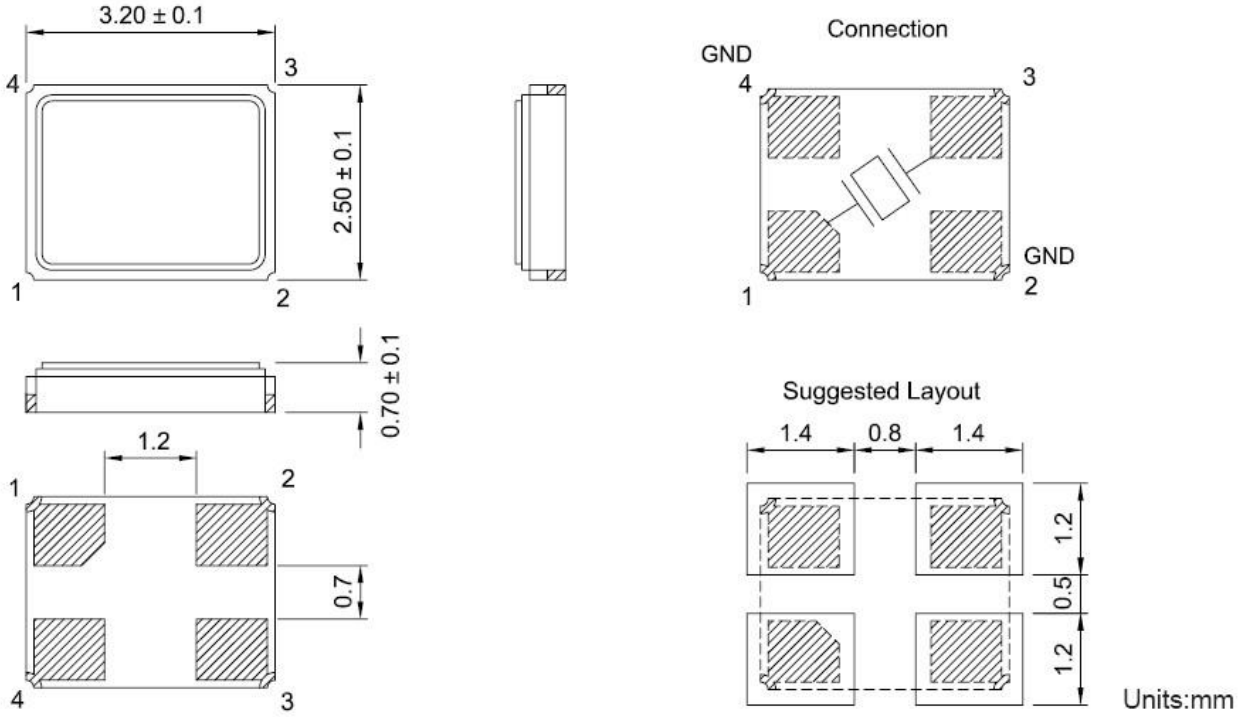
1、 Specifications

1	规格型号 Holder Type	SMD3225
2	标称频率 Nominal Frequency	50.000MHz
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	-40~125℃
8	负载电容 Load Capacitance	9 pF
9	静电容 Shunt capacitance	≤5 pF
10	等效电阻 Equivalent Series Resistance	60Ω Max
11	激励功率 Drive Level	100uw Max
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

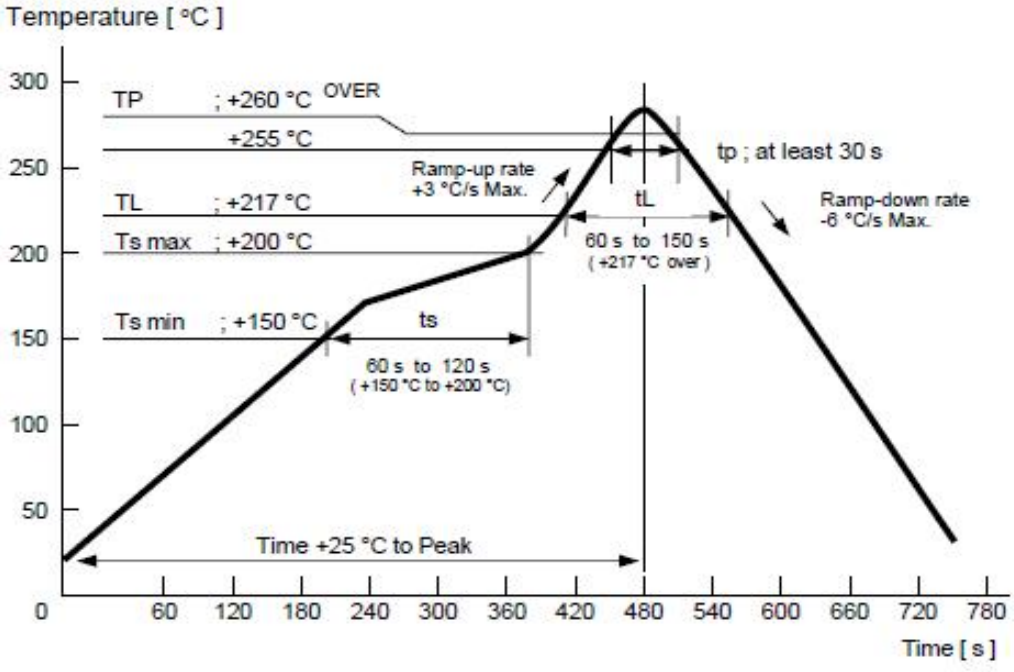
2.Frequency stability over temperature range (AT cut)

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

3. Dimensions (unit:mm)



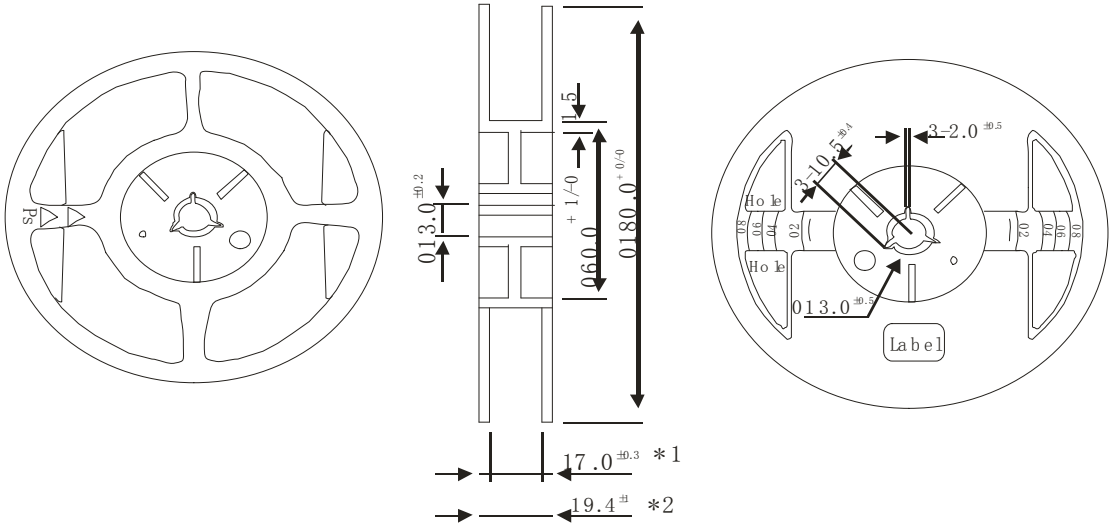
4.Recommended Reflow profile

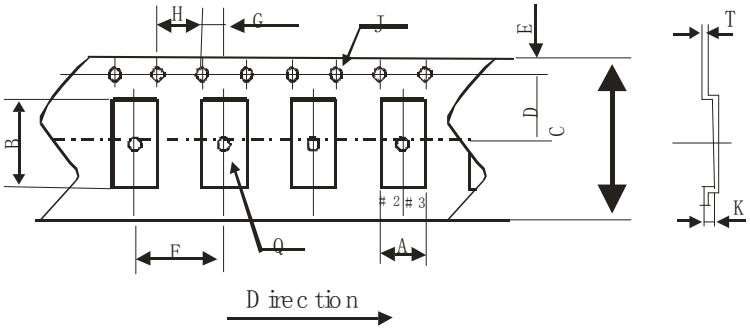


5.Reliability specifications

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





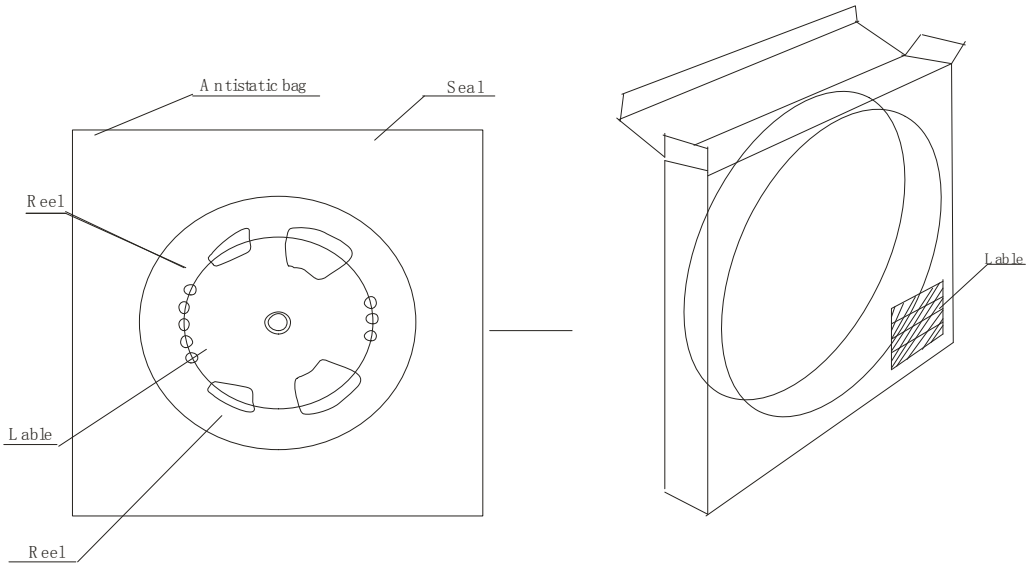
*1 -5032, -4025: 13.0±0.3, -3225 :9.0±0.3
*2 -5032, -4025:15.4±1.0, -3225 :11.4±1.0
*3 -Series ⌀330

- **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	$5.4^{\pm 01}$	$3.9^{\pm 0.1}$	$3.5^{\pm 0.1}$	$3.5^{\pm 0.1}$	$2.9^{\pm 0.1}$	$2.9^{\pm 0.1}$
B	$7.4^{\pm 0.1}$	$6.4^{\pm 0.1}$	$5.4^{\pm 0.1}$	$5.4^{\pm 0.1}$	$4.4^{\pm 0.1}$	$3.6^{\pm 0.1}$
C	$16.0^{\pm 0.2}$	$16.0^{\pm 0.2}$	$12.0^{\pm 0.2}$	$12.0^{\pm 0.2}$	$10.0^{\pm 0.2}$	$8.0^{\pm 0.2}$
D	$7.5^{\pm 0.1}$	$7.5^{\pm 0.1}$	$5.5^{\pm 0.1}$	$5.5^{\pm 0.1}$	$5.5^{\pm 0.1}$	$5.5^{\pm 0.1}$
E	$1.75^{\pm 0.1}$	$1.75^{\pm 0.1}$	$1.75^{\pm 0.1}$	$1.75^{\pm 0.1}$	$1.75^{\pm 0.1}$	$1.75^{\pm 0.1}$
F	$8.0^{\pm 0.1}$	$8.0^{\pm 0.1}$	$8.0^{\pm 0.1}$	$8.0^{\pm 0.1}$	$4.0^{\pm 0.1}$	$4.0^{\pm 0.1}$
G	$2.0^{\pm 0.1}$	$2.0^{\pm 0.1}$	$2.0^{\pm 0.1}$	$2.0^{\pm 0.1}$	$2.0^{\pm 0.1}$	$2.0^{\pm 0.1}$
H	$4.0^{\pm 0.1}$	$4.0^{\pm 0.1}$	$4.0^{\pm 0.1}$	$4.0^{\pm 0.1}$	$4.0^{\pm 0.1}$	$4.0^{\pm 0.1}$
J	$1.55^{\pm 0.05}$	$1.55^{\pm 0.05}$	$1.5^{+0.1/0}$	$1.5^{+0.1/0}$	$1.5^{\pm 0.1/0}$	$1.5^{\pm 0.1/0}$
K	$1.4^{\pm 0.1}$	$1.5^{\pm 0.1}$	$1.0^{\pm 0.1}$	$1.5^{\pm 0.1}$	$0.9^{\pm 0.1}$	$0.9^{\pm 0.1}$
Q	$1.6^{+0.1/0}$	$1.55^{\pm 0.05}$	$1.6^{\pm 0.1}$	$1.6^{\pm 0.1}$	$1.5^{\pm 0.1/0}$	$1.5^{\pm 0.1/0}$
T	$0.3^{\pm 0.05}$	$0.3^{\pm 0.05}$	$0.25^{\pm 0.05}$	$0.25^{\pm 0.05}$	$0.25^{\pm 0.05s}$	$0.25^{\pm 0.05s}$

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

3000pcs/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.