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APPROVAL SHEET

Customer :

Part Number :

JYEG P/N : 7N100000G33PC

Holder : SMD 5032OSC

Frequency : 100.000MHZ

Manufacturer : SJK JingkeXin

Date : 2025/12/16

Prepared	Checked	Approved
Ji Siyong	Yang Tiesheng	Zhang Liqiang

(For Customer Use)

Acceptable	Non-Acceptable

1. This specification applies to SMD clock oscillator with a frequency of 100.000MHz.

2. Electrical characteristics

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Normal Frequency Range				100.000		MHz
Vibration Mode		3rd	-	-	-	-
Total Stability	Δf/fn	See Note 1	-30	-	+30	ppm
Operating Temperature	TA	–	-40	25	85	℃
Storage Temperature	TSTG	–	-55	-	125	℃
Operating Supply Voltage	Vcc	±10%		3.3		V
Start up time					10	mS
Supply Current	Icc		-	-	70	mA
Enable Feature	YES					
"H"Input Voltage	VIH		Vcc*0.7			V
"L"Input Voltage	VIL				Vcc*0.3	V
E/D	Logic "1"Or Floating input,Outputs enable; Logic "0" ,Outputs disable					
Aging			-3		+3	ppm
Output	LVPECL					
"H"Output Voltage	VOH	R_L=50 ohms to （V_{cc}-2V）	V_{cc}-1.025	-	V_{cc}-0.88	V
"L"Output Voltage	VOL		V_{cc}-1.810	-	V_{cc}-1.62	V
Duty Cycle	Duty	@V_{cc}-1.3V	45	50	55	%
Rise and Fall Time	Tr/Tf	@20%-80%	-	-	0.5	nS
Phase Noise		10Hz	-	-		dBc
		100Hz	-	-		dBc
		1KHz	-			dBc
		10KHz	-	-		dBc
		100KHz	-	-		dBc
		1M	-	-		dBc
Jitter	RMS	12kHz to 20MHz	-	-	0.2	ps

Note 1:frequency tolerance@25℃ and frequency stability vs. operating temperature range and voltage variance.

3. Construction

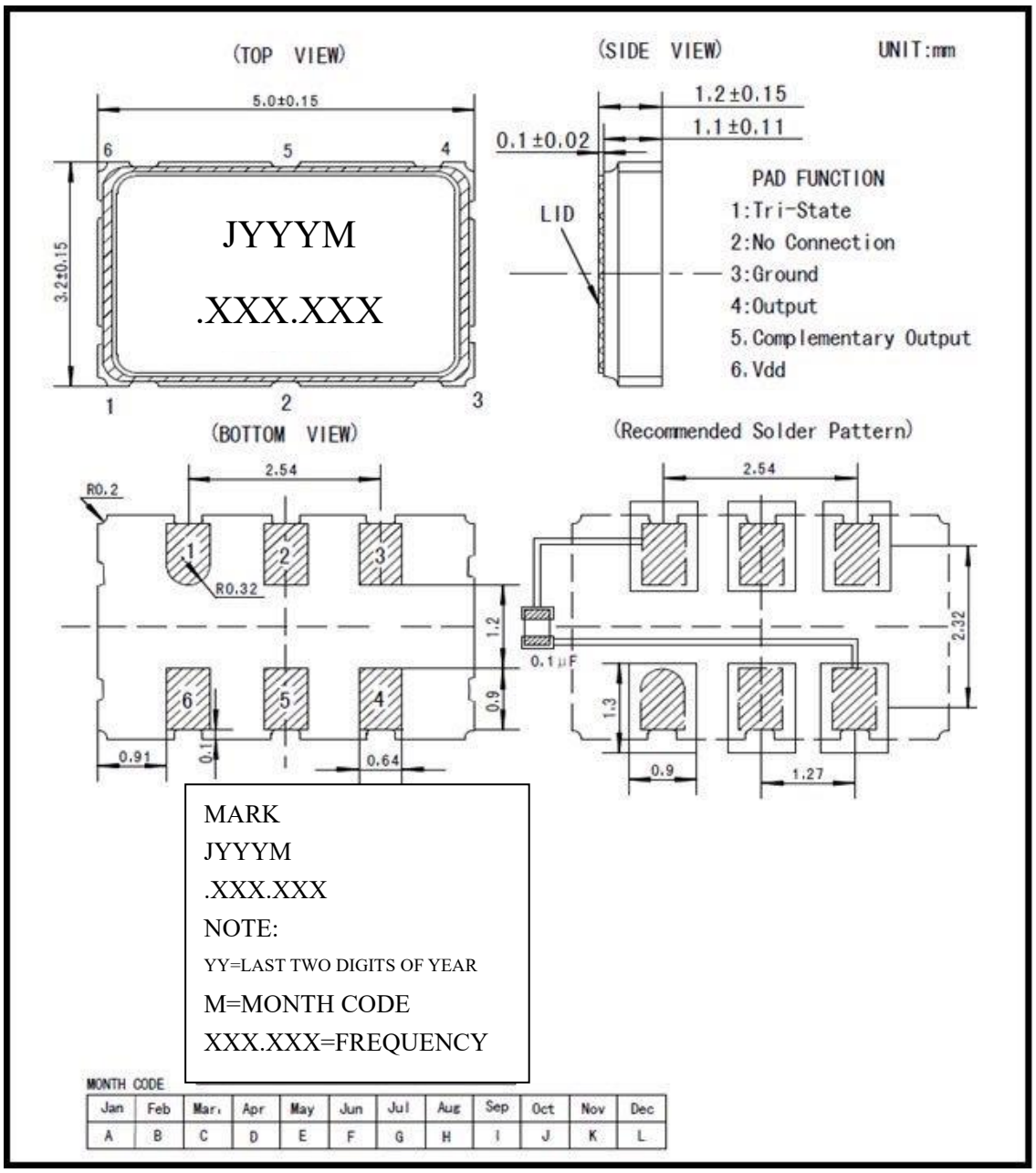
3.1 Crystal enclosure seal:

■ Seam seal □ resistance weld □cold weld

3.2 crystal enclosure medium

■ nitrogen □ vacuum □ dry air

4.Dimension:



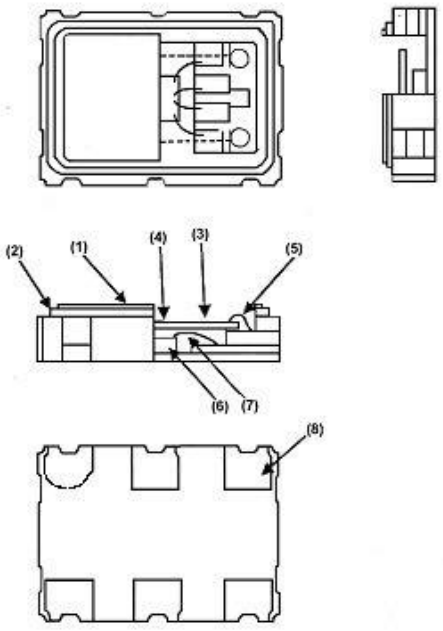
MONTH CODE

Jan	Feb	Mar.	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A	B	C	D	E	F	G	H	I	J	K	L

5. Marking

■ Laser Marking □ Ink Marking

6.Inside Structure



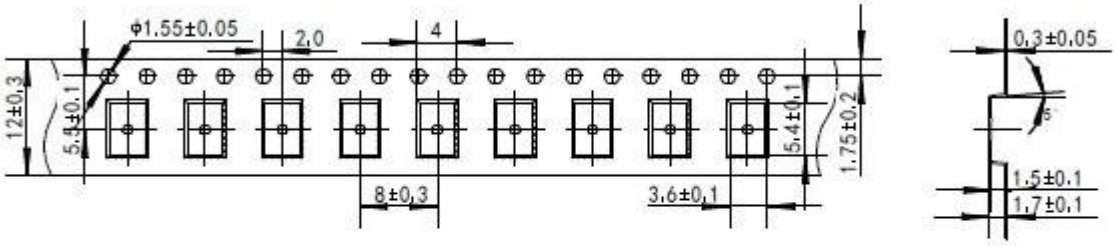
No.	Name	Material
(1)	Can	Fe-Co-Ni
(2)	Base	Ceramic
(3)	Blank	Quartz
(4)	Electrode	Ag
(5)	Epoxy	Silicon +Ag
(6)	IC	Silicon
(7)	Wire	Au
(8)	Soldering pads	Au plated

7.Taping Dimension and Packing Instruction

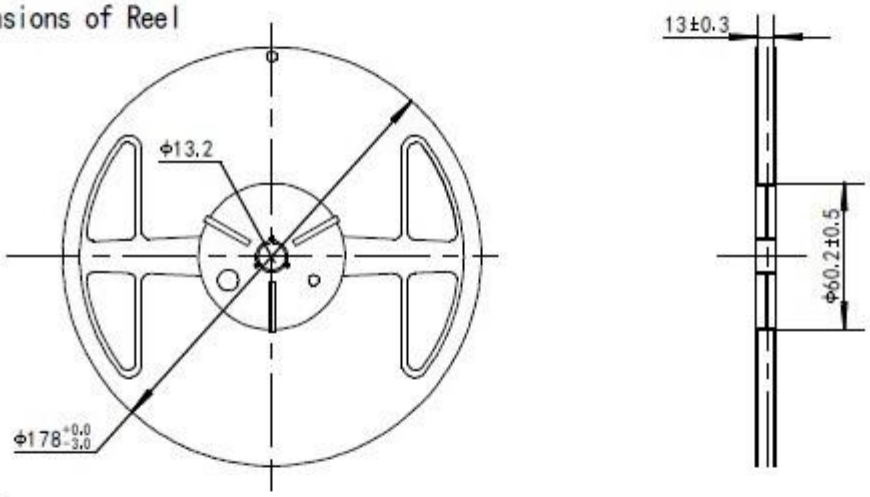
7.1

UNIT:mm

1.Dimensions of Carrier Tape



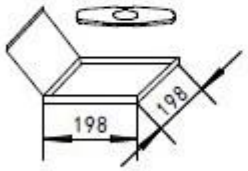
2.Dimensions of Reel

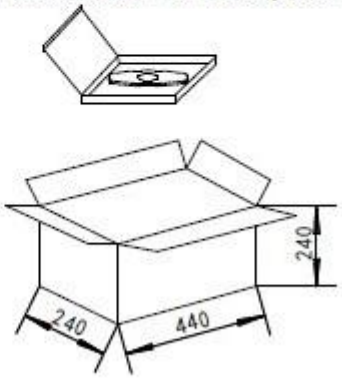


3.Packing

1 reel/box 1 reel=1000pcs

10 boxes/carton(the carton with bubble pad on four sides)





7.2

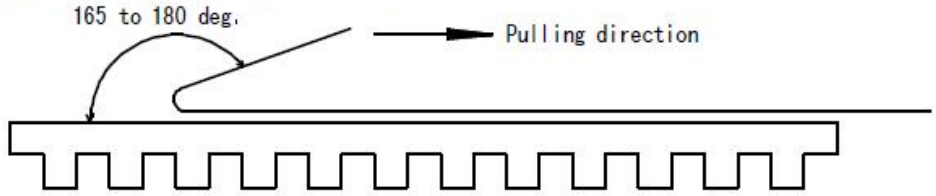
Release strength of cover tape

It has to between 30g to 90g under following condition.

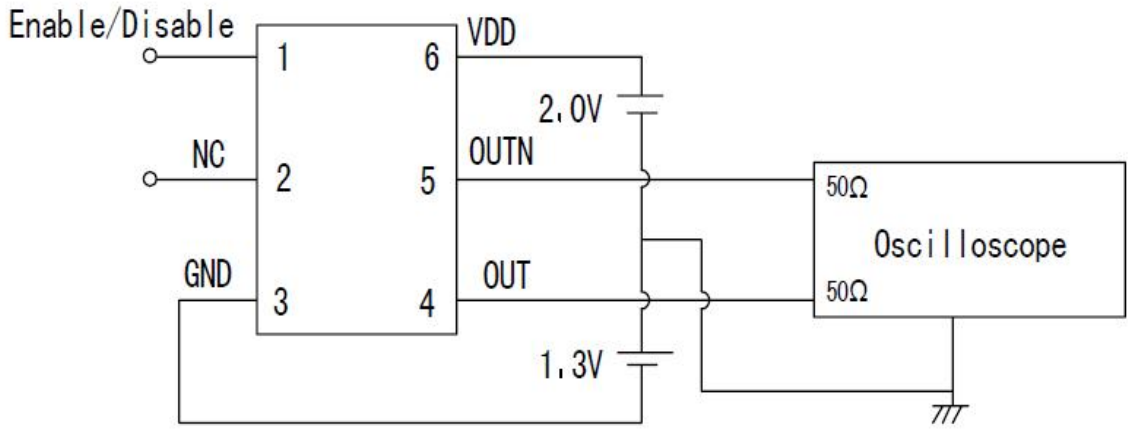
Pulling direction : 165 deg. to 180 deg.

Speed : 300mm/min.

Otherwise unless specified.



8. Test circuit



9.Electro-static Discharges

9.1 HBM/ESD and MM/ESD Classilication

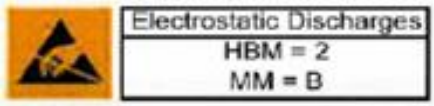
HBM/ESD Component Classilication:

HBM/ESD	Voltage Range(V)
1	0~1999
2	2000~3999
3	4000~ABOVE

MM/ESD Component Classilication:

MM/ESD	Voltage Range(V)
A	0~199
B	200~399
C	400~ABOVE

9.2 OSCILLATOR Production For ESD Classilication:

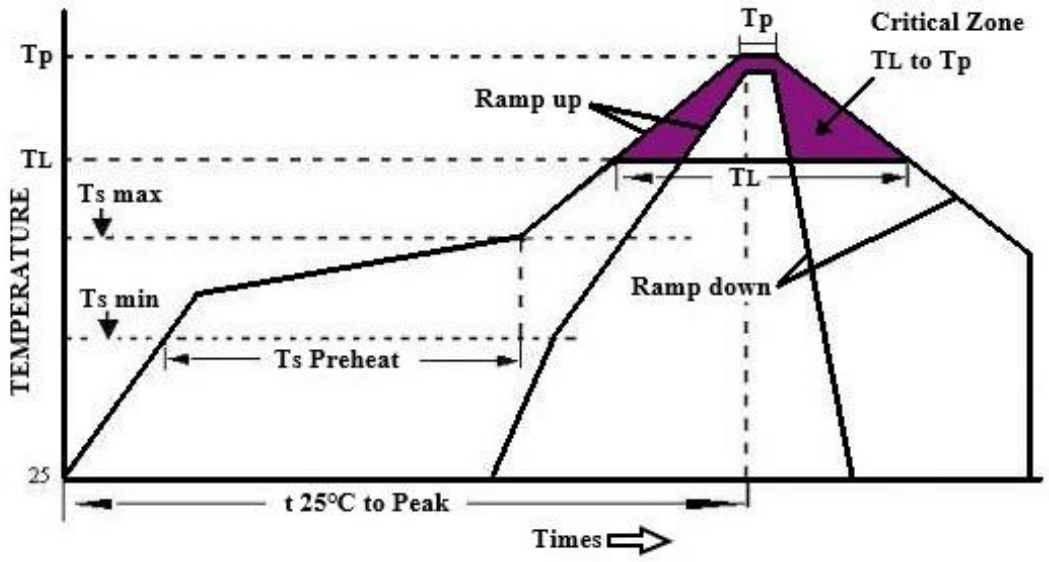


10.Reliability characteristic:

<table>
<tr><th></th><th>Item</th><th>Condition</th><th>Reference</th><th>Specifications</th></tr>
<tr><td>10.1</td><td>Solderability</td><td>Solder bath temperature:260℃ , dwell time:5 seconds, Solder: 100% tin</td><td>IEC68-2-20:1979</td><td>A new uniform coating of solder shall cover a minimum of 95% of the surface being immersed.</td></tr>
<tr><td>10.2</td><td>Resistance to soldering heat</td><td>Solder temperature 260+/-3℃,Immersion time:10 S Solder bath composition:100% tin</td><td>IEC68-2-58:1989</td><td>△F≤+/-5ppm</td></tr>
<tr><td>10.3</td><td>Vibration</td><td>The entire frequency range: 10Hz to 55Hz ,Amplitude:1.5mm This motion shall be applied for a period of 2 h in each of 3 mutually perpendicular axes(a total of 6h)</td><td>IEC 68-2-21:1992</td><td>△F≤+/-5ppm</td></tr>
<tr><td>10.4</td><td>Drop test</td><td>Drop from 75cm height on 3cm hard wooden board for 6 times</td><td>IEC68-2-32:1990</td><td>△F≤+/-5ppm</td></tr>
<tr><td>10.5</td><td>Cold Storage</td><td>The quartz crystal unit shall be stored at a temperature of –40+/-3℃ for 1000 h.then it shall be subjected to standard atmospheric conditions for 1h after which measurement shall be made.</td><td>IEC68-2-6:1982</td><td>△F≤+/-5ppm</td></tr>
<tr><td>10.6</td><td>High temperature high humidity storage (steady state)</td><td>The quartz crystal unit shall be stored at a temperature of 40+/-2℃ with relative humidity of 95% for 1000h, then it shall be subjected to standard atmospheric conditions for 2h after which measurement shall be made.</td><td>IEC60068-2-1:1990</td><td>△F≤+/-5ppm</td></tr>
<tr><td>10.7</td><td>Thermal shock</td><td>The quartz crystal unit shall be subjected to 50 successive Change of temperature cycles. Each as shown in table below ,then it shall be subjected to standard atmospheric conditions for 1h after which measurement shall be made.
<table>
<tr><td></td><td>Temperature</td><td>Duration</td></tr>
<tr><td>1</td><td>-40+/-3℃</td><td>15minutes</td></tr>
<tr><td>2.</td><td>100+/-2℃</td><td>15minutes</td></tr>
<tr><td>3.</td><td>Transition time</td><td>Within 10 seconds</td></tr>
</table></td><td>IEC68-2-14:1986</td><td>△F≤+/-5ppm</td></tr>
<tr><td>10.8</td><td>Sealing</td><td>Helium leakage detector shall used to measure the leakage rate of gas through any faulty seal. Pressure:500Kpa, duration:120 minutes.</td><td>IEC68-2-3:1984</td><td>Leakage rate≤ $1*10^{-9}$ $Pa.m^3/S$</td></tr>
<tr><td>10.9</td><td>High temperature Life test</td><td>The quartz crystal unit shall be stored at a temperature of 85+/-3℃ for 720h ,then it shall be subjected to standard atmospheric condition for 1h after which measurement shall be made.</td><td>IEC60068-2-2:1974</td><td>△F≤+/-5ppm</td></tr>
</table>

11.All products are RoHs compliant

12. Reflow Profile



High Temperature Infrared /Convection

Note:Temperature shown are applied to body of device

Ts max to T_L(Ramp-up Rate)	3℃/second max
Preheat Temperature Min(Ts Min) Temperature Typical(Ts Typ) Temperature Max.(Ts Max) Time(ts)	 150℃ 175℃ 200℃ 60-180 seconds
Ram-up Rate(T_L to Tp)	3℃/second Max
Time Maintained Above: --Temperature(T_L) --Time(T_L)	 217℃ 60-150seconds
Peak Temperature (Tp)	260℃ Max for 10 seconds
Time within 5℃ of actual peak(t_p)	20-40 seconds
Ramp-down Rate	6℃/seconds Max
Tune 25℃ to Peak Temperature(t)	8 minutes Max
Moisture Sensitivity Level	Level 1

High Temperature Manual Soldering

Note:Temperature shown are applied to body of device
260℃ Max for 10 seconds Max. 4 times Max