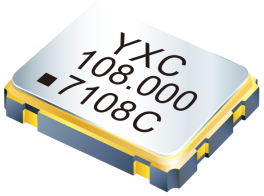
PROGRAMMABLE CRYSTAL OSCILLATOR

YSO680PR Low Power



Applications

- Any frequency

Features

- One time programmable
- PLL circuit provides wide frequency range application (1-108MHz)
- Low power consumption design
- Package Size: 2.5*2.0 3.2*2.5 5.0*3.2 7.0*5.0mm.

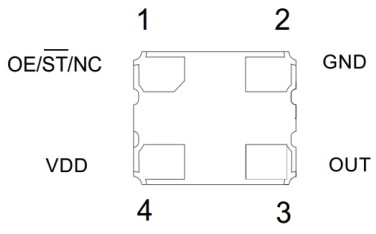
Specifications

Parameter	1.8V	2.5V	3.3V
Frequency Range	1MHz to108MHz	1MHz to 108MHz	1MHz to 108MHz
Supply Voltage Variation (Vdd)10%	1.62V~1.98V	2.25V~2.75V	2.97V~3.63V
Standby Current	15uA		
Frequency Tolerance	±20ppm,±25ppm,±50ppm,or specify		
Output Load	15pF		
Operating Temperature Range	-40~+85℃,or specify		
Storage Temperature Range	-55~+125℃		
Voltage Vol (Max.) / Vol (Min.)	VOH = 90%Vdd/VOL = 10%Vdd		
Duty Cycle	45~55%		
Period Jitter (@12K-20Mhz)	1.8V=1.5ps 2.5V=1.1ps 3.3V=1ps		
Start-up Time	10ms Max.		
Supply Current	See Below		
Frequency Aging (at 25℃)	±3 ppm / year Max.		

Pin Dimension

Pin	Symbol	Functionality	
1	OE/ST/NC	Output Enable	H：specified frequency output L：output is low. Specified frequency output stop.
		Standby	H：specified frequency output L：output is low. Device goes to sleep mode. Supply current reduces to 400uA(Standby Current).
		No Connect	Pin 1 = VDD or Pin 1 is Open : Specified frequency output.Pin 1 has no function
2	GNG	Power	Electrical ground
3	OUT	Output	Oscillator output
4	VDD	Power	Power supply voltage

Pin Assignments



Current Consumption

Supply Voltage	Power Dissipation		
	1.000~30.000MHZ	31.000~75.000MHZ	76.000~108.000MHZ
1.8V	6mA max	8mA max	12mA max
2.5V	8mA max	10mA max	15mA max
3.3V	10mA max	15mA max	20mA max

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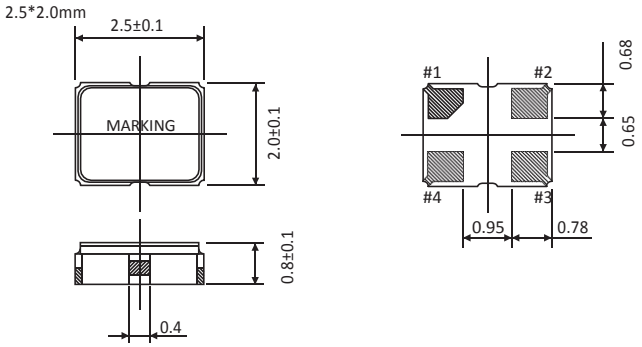
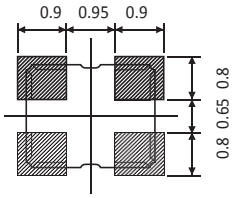
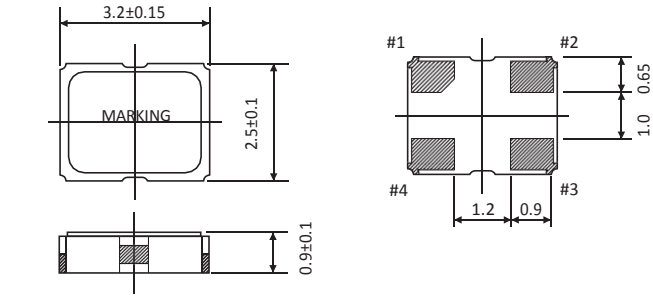
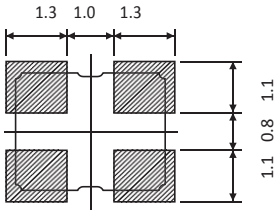
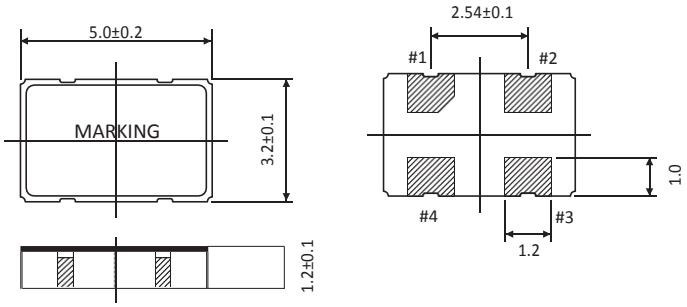
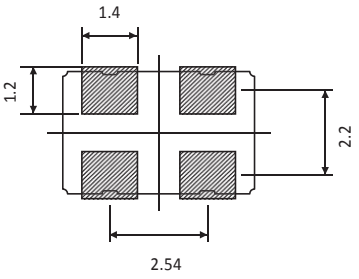
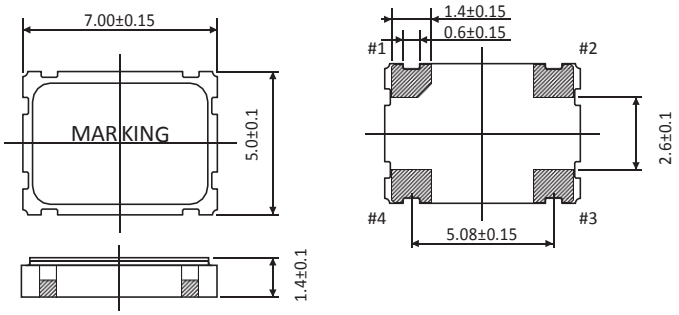
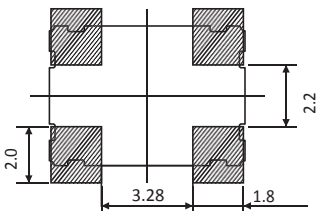
Dimensions and Patterns [unit:mm]

Package Size – Dimensions (Unit: mm)	Recommended Land Pattern (Unit: mm)
2.5*2.0mm 	
3.2*2.5mm 	
5.0*3.2mm 	
7.0*5.0mm 	

Notes:
A capacitor of value 0.01uf~0.1uf or higher between Vdd and GND is required.

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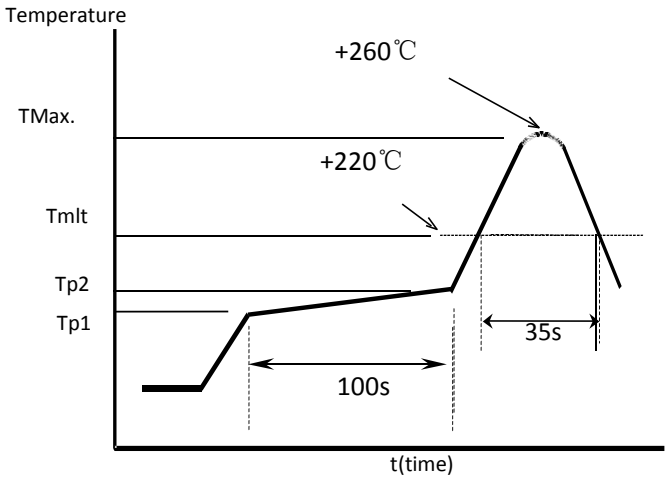
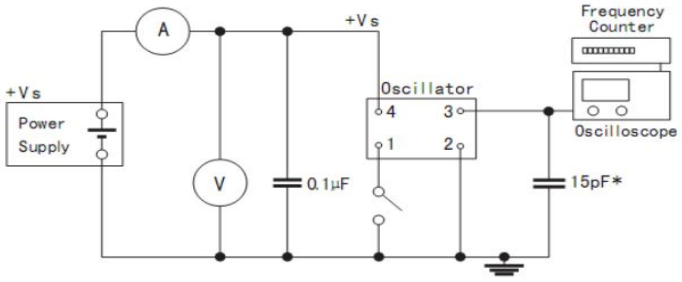
Reflow Soldering Profile

Pre Heating Temperature
Tp1 ~ Tp2 = + 170 °C
Heating Temperature
TMIt = + 220 °C
Peek Temperature
TMax. = + 260 °C

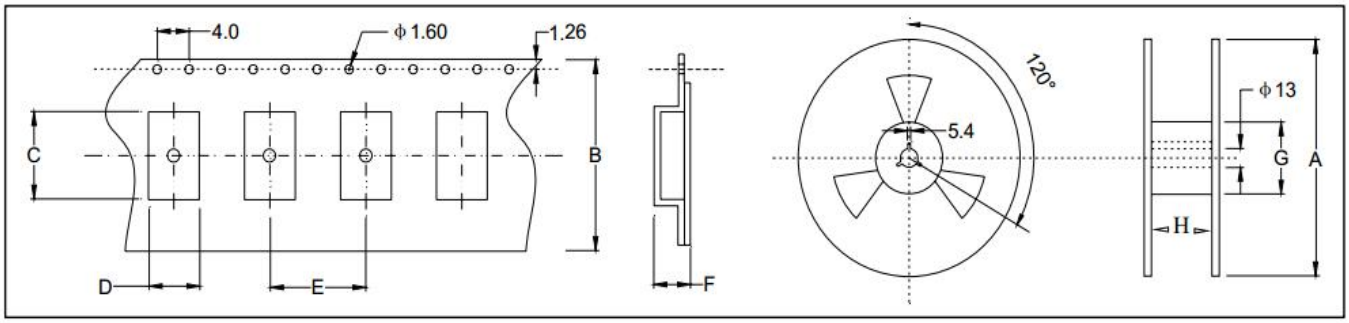
Point of measuring
In case of Solder ability Terminal.
In case of Resistance to soldering heat Surface.



Test Circuit



Taping Specification(Unit: mm)



Size(OSC)	A	B	C	D	E	F	G	H
SMD-7050	180±2.0	16.0±0.3	7.50±0.1	5.50±0.1	8.0±0.1	2.00±0.1	61.0±1.0	16.0±1.0
SMD-5032	180±2.0	12.0±0.3	5.40±0.1	3.60±0.1	8.0±0.1	1.70±0.1	61.0±1.0	12.0±1.0
SMD-3225	180±2.0	8.0±0.3	3.40±0.1	2.70±0.1	4.0±0.1	1.50±0.1	61.0±1.0	8.0±1.0
SMD-2520	180±2.0	8.0±0.3	2.90±0.1	2.40±0.1	4.0±0.1	1.20±0.1	61.0±1.0	8.0±1.0