

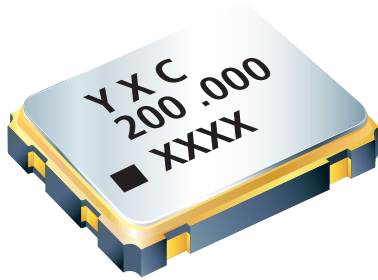


给您一颗快乐的“芯”！

YSO690PR



Features



- Quartz Crystal Programmable Oscillator
- Any frequency between 1MHz~200MHz accurate to 6 decimal places
- Operating temperature from -40 to +85
- Period Jitter, Typical: 1pSec at 12KHz to 20MHz
- CMOS compatible output
- Industry-standard packages: 2.0x1.6 , 2.5 x 2.0 , 3.2 x 2.5 , 5.0 x 3.2 , 7.0 x 5.0 mm x mm

Applications:

- Ideal for DSC, DVC, DVR, IP CAM, Tablets, e-Books, SSD, GPON, EPON, etc
- Ideal for high-speed serial protocols such as : USB, SATA, SAS,

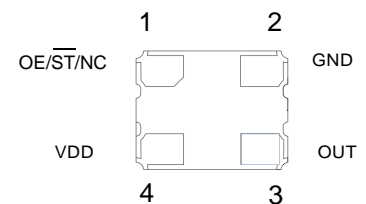
Electrical Specifications

All Min and Max limits are specified over temperature and rated operating voltage with 15 pF output load unless otherwise stated. Typical values are at 25°C and nominal supply voltage.

Parameter	1.8 V	2.5 V	3.3 V
Frequency Range	1MHz~125MHz	1MHz~200MHz	1MHz~200MHz
Supply Voltage Variation(Vdd)10%	1.62 V~1.98 V	2.25 V~2.75 V	2.97 V~3.63 V
Standby Current	400 μ A		
Frequency Tolerance	\pm 20ppm, \pm 25ppm, \pm 50ppm, or specify		
Output Load	15 pF, or specify		
Operating Temperature Range	- 40 ~ + 85 $^{\circ}$ C, or specify		
Storage Temperature Range	- 55 ~ +150 $^{\circ}$ C		
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	7ms Max.		
Supply Current	See Below		
Frequency Aging (at 25 $^{\circ}$ C)	\pm 3 ppm / year Max.		

Pin Description

Pin	Symbol		Functionality
1	OE/ \overline 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	GND	Power	Electrical ground
3	OUT	Output	Oscillator output
4	VDD	Power	Power supply voltage



Pin Assignments

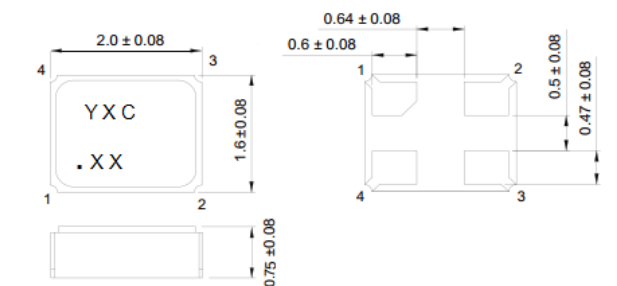
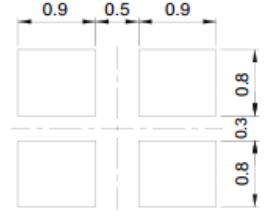
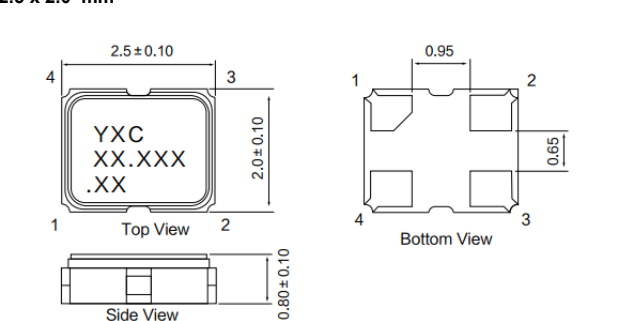
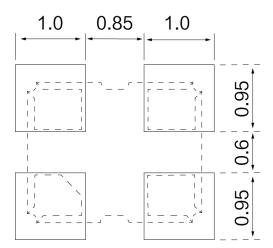
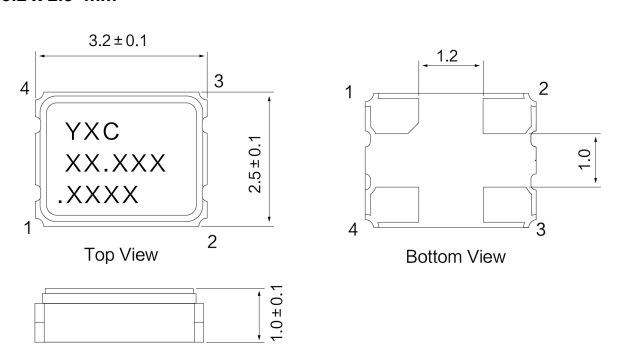
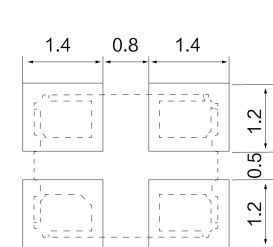
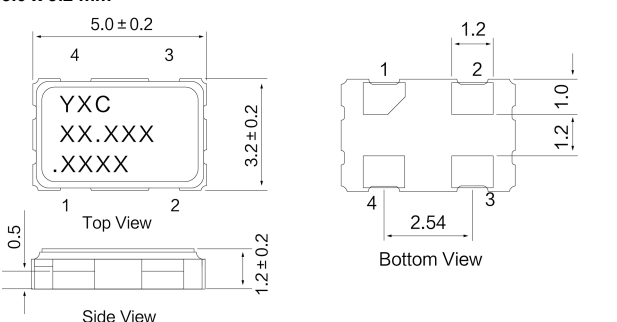
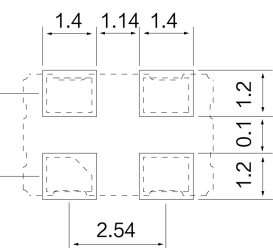
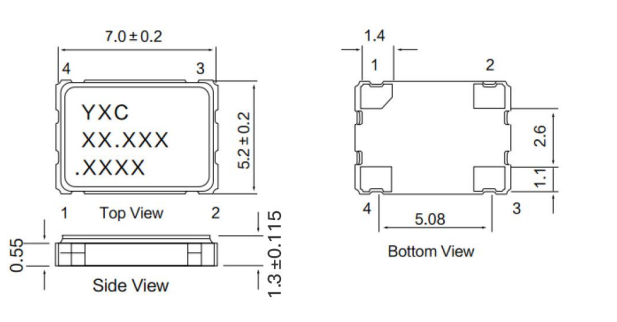
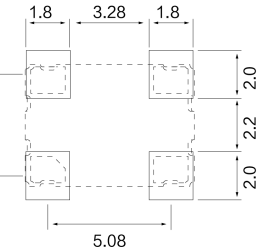


给您一颗快乐的“芯”！

YSO690PR



Dimensions and Patterns

Package Size – Dimensions (Unit: mm)	Recommended Land Pattern (Unit: mm)
<p>2.0 x 1.6 mm</p>  <p>Top view dimensions: 2.0±0.08, 1.6±0.08, 0.64±0.08, 0.6±0.08, 0.5±0.08, 0.47±0.08, 0.75±0.08. Side view height: 0.75±0.08.</p> <p>Suggested Layout dimensions: 0.9, 0.5, 0.9, 0.8, 0.3, 0.8.</p>	<p>Recommended Land Pattern (Unit: mm)</p> <p>Suggested Layout</p> 
<p>2.5 x 2.0 mm</p>  <p>Top View dimensions: 2.5±0.10, 2.0±0.10, 0.95, 0.65. Side View height: 0.80±0.10. Bottom View dimensions: 0.95, 0.65.</p> <p>TOP View Suggested Layout dimensions: 1.0, 0.85, 1.0, 0.95, 0.6, 0.95.</p>	<p>TOP View Suggested Layout</p> 
<p>3.2 x 2.5 mm</p>  <p>Top View dimensions: 3.2±0.1, 2.5±0.1, 1.2, 1.0. Side View height: 1.0±0.1. Bottom View dimensions: 1.2, 1.0.</p> <p>TOP View Suggested Layout dimensions: 1.4, 0.8, 1.4, 1.2, 0.5, 1.2.</p>	<p>TOP View Suggested Layout</p> 
<p>5.0 x 3.2 mm</p>  <p>Top View dimensions: 5.0±0.2, 3.2±0.2, 1.2, 1.0, 1.2, 2.54. Side View height: 1.2±0.2. Bottom View dimensions: 1.2, 1.0, 1.2, 2.54.</p> <p>TOP View Suggested Layout dimensions: 1.4, 1.14, 1.4, 2.2, 2.54, 1.2, 0.1, 1.2.</p>	<p>TOP View Suggested Layout</p> 
<p>7.0 x 5.0 mm</p>  <p>Top View dimensions: 7.0±0.2, 5.2±0.2, 1.4, 2.6, 1.1, 5.08. Side View height: 1.3±0.115. Bottom View dimensions: 1.4, 2.6, 1.1, 5.08.</p> <p>TOP View Suggested Layout dimensions: 1.8, 3.28, 1.8, 4.2, 5.08, 2.0, 2.2, 2.0.</p>	<p>TOP View Suggested Layout</p> 

Notes:

1. A capacitor of value 0.01μF-0.1μF or higher between Vdd and GND is required.



给您一颗快乐的“芯”！

YSO690PR



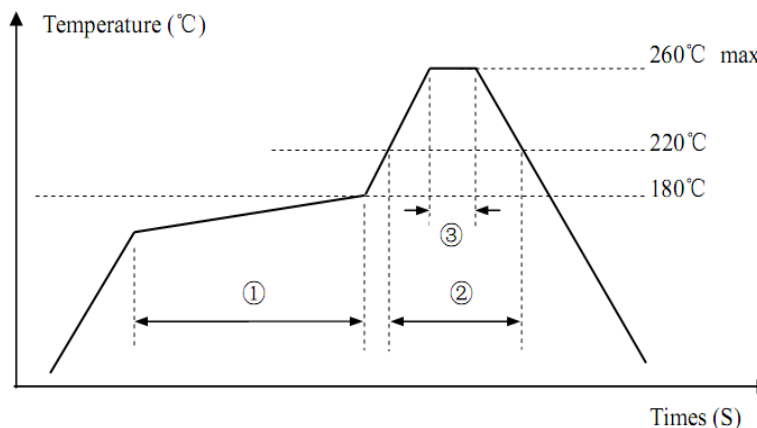
★ PART NUMBER GUIDE 部件号示例 e.g. O97050200MEDA4SI-* YSO690PR=7.0 ×5.0 SMD SEAM TYPE

Quartz Crystal Oscillator	Series	Dimensions	Frequency (Hz)	Supply voltage (V)	Frequency Stability Overall (ppm)	output	Pin	Material	Operating Temp. Range	-	Remark
O	9	7050	200M	E	D	A	4	S	I	-	*

★ INPUT CURRENT 工作电流

Supply Voltage	Power Dissipation				
	1.000 ~ 30.000 MHz	30.000 ~ 75.000 MHz	75.000 ~ 110.000 MHz	133.000 ~ 166.000 MHz	166.000 ~ 200.000 MHz
1.8 V	18 mA max	19 mA max	20 mA max	20 mA max	20 mA max
2.5 V	21 mA max	22mA max	23 mA max	24mA max	25mA max
3.3 V	23 mA max	24 mA max	25 mA max	26 mA max	27 mA max

★ REFLOW SOLDERING PROFILE 回流焊特性



Pb free reflow A	①	Preheat	160~180°C	120sec. max
	②	Primary heat	220°C	60sec. max
	③	Peak	260°C	10sec. max.

★ Test Circuit 测试电路

