



**DIP QUARTZ CRYSTAL OSCILLATOR**



**4 Pin Version 13.08×13.08 mm**

- ±20 ppm type available
- Excellent Reliability Performance



RoHS compliant

**★ PARAMETERS**

PARAMETERS	SPECIFICATION		
Frequency Range	0.5~200MHz		
Supply voltage	1.8V、3.3V、5.0V		
Input Current		TTL	CMOS
	0.5MHz ~ 24.999MHz	25mA max	20mA max
	25MHz ~ 99.999MHz	40mA max	40mA max
	100MHz ~ 200MHz	60mA max	60mA max
Frequency Stability Overall	±20ppm~±100ppm		
Operating Temp. Range	-10~+60℃ to -40~+85℃		
Storage Temp. Range	-55~+125℃		
Output Load	CMOS or TTL (15pF/1-10TTL)		
Symmetry	45% ~ 55% typ. (40% ~ 60% max.) at 0.5×Vdc		
Start-up time	10mS max		
Rise & Fall Time	10nS max		
Aging	±5ppm max/Year		

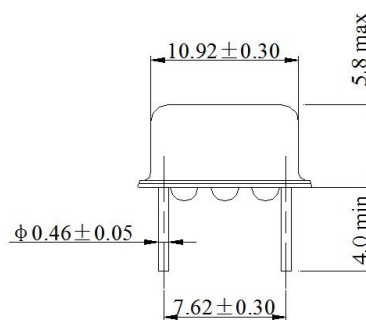
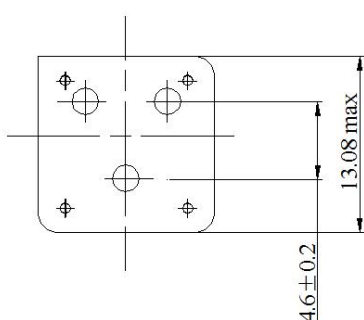
⊙ All specification subject change without notice

**★ FREQUENCY STABILITY VS. TEMPERATURE**

Operation Temperature Range	Frequency Stability			
	±20ppm	±25ppm	±30ppm	±50ppm
-10℃~+60℃	○	●	○	○
-20℃~+70℃	○	○	●	○
-40℃~+85℃				●

● standard ○ available

**★ DIMENSIONS & LAND PATTERN LAYOUT (Unit: mm)**



Pin	Connection
1	Tri-state or no connect
2	GND
3	Output
4	V <sub>DD</sub>



★ PART NUMBER GUIDE *e.g. FXO12.000M3.3H-50D (\*H=Half Size, DIP8)*

Logo	Quartz Crystal Oscillator	Frequency Hz	Supply voltage V	Package	Frequency Stability ppm	Operating Temp. Range
F	XO	12.000M	3.3	H	50	D

Definition	Description	
Operating Temperature Range	<b>A:</b> -10~+60°C	<b>B:</b> -20~+70°C
	<b>C:</b> -30~+80°C	<b>D:</b> -40~+85°C
	<b>S:</b> Customer specified	

★ WAVE SOLDERING PROFILE

