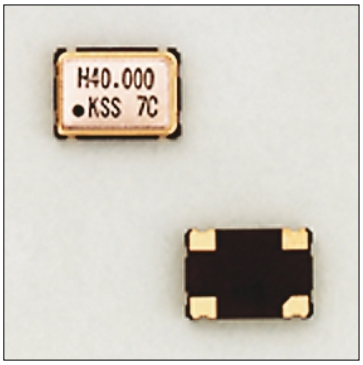
FXO-31F

Miniature Clock Crystal Oscillator

■Features

- It is a compact and thin ceramic package with a metalized lead for surface mounting that is able to be automatically loaded.
- Reflow soldering is possible.
- CMOS, TTL IC direct drive is possible. Depending upon the frequency band, there is also a crystal oscillator with a CMOS-IC with a tri-state function built in.
- Use in the broad frequency band from 1.8MHz to 50MHz is possible.



■Specifications

Item \ Type	FXO-31F	FXO-31FH	FXO-31FT	FXO-31FL
Application	C-MOS Output Type	C-MOS Output Heavy Load Type	TTL Output Type	Low Voltage Type
Frequency Range	1.8~50MHz			
Standard Frequency	Table 1			
Frequency Stability	±100×10^{-6}			
Operating Temperature Range	-10~+70℃			
Storage Temperature Range	-55~+125℃			
Supply Voltage	5V±0.5V			3.3V±0.3V
Current	25mA MAX.	25mA MAX. (1.8~15.0MHz)		18mA MAX. (1.8~39.9MHz)
		30mA MAX. (15.1~32.0MHz)		25mA MAX. (40.0~50.0MHz)
		45mA MAX. (32.1~50.0MHz)		
Load	15pF (LS10TTL)	50pF (10TTL)		20pF (5TTL)
Output Level	V_{OH} : 0.9×V_{DD} MIN. V_{OL} : 0.5V MAX.			V_{OH} : 0.9×V_{DD} MIN. V_{OL} : 0.4V MAX.
Output Symmetry	40~60% (VT=1/2V $_{DD}$)		40~60% (VT=1.4V)	40~60% (VT=1/2V_{DD})
Rise Time/Fall Time	10ns MAX.		6ns MAX.	6ns MAX.
Start-up Time	10ms MAX.			
Vibration	10~55Hz Ampulitude 1.5mm, Cycle 2 minute, 3 direction, 2 hour each			
Shock	1000G			
Weight	0.2g			

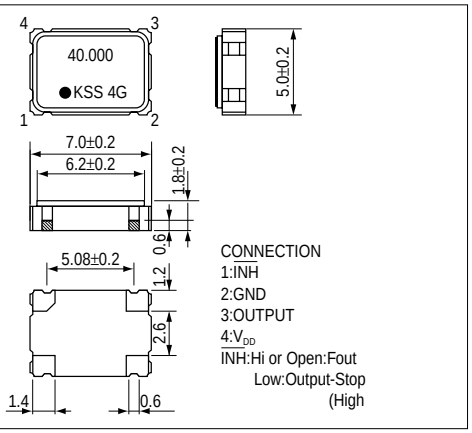
*Taping item packaging : one unit 3,000 pcs or 1,000 pcs

■Table 1
Standard Frequencies

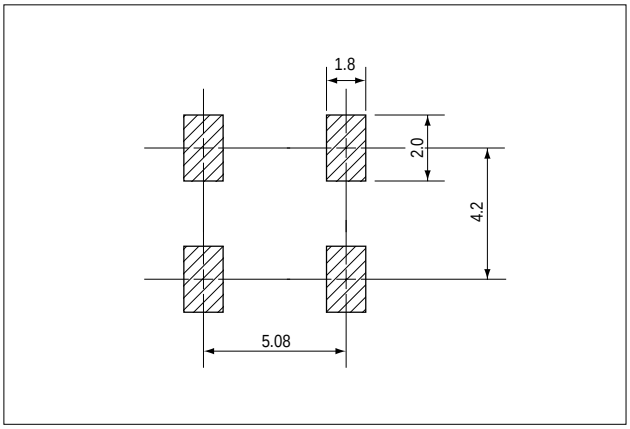
Frequency (MHz)		
1.8432	12.000	22.5792
2.000	12.288	24.000
2.4576	12.322	25.000
2.500	12.800	25.175
3.579545	13.500	27.000
3.6864	14.31818	28.63636
4.000	14.7456	31.500
4.096	15.000	32.000
4.9152	15.360	33.8688
5.000	16.000	40.000
6.000	16.384	42.1052
6.144	16.842	48.000
6.400	16.9344	
7.15909	18.000	
7.680	18.432	
8.000	19.6608	
8.192	20.000	
9.8304	21.150	

■Outline

FXO-31F



■Land Pattern(reference)



Dimensions(mm)