Clock Oscillators Surface Mount Type
KC7050B Series (FXO-31F Series)

KYOCERA

CMOS/ 3.3V/ 5.0V/ 7.0×5.0mm



Pb Free

RoHS Compliant

Features

- Surface mount type suitable for auto pick-and-place
- Reflow soldering compatible
- CMOS, TTL IC direct drive is possible
- With tri-state function
- Broad frequency range from 1.8MHz to 50MHz
- Supply voltage Vcc=3.3/ 5.0V available

Frequency Tolerance (Overall)

Freq. Tol. Code	Freq. Tol. × 10⁻⁶	Operating Temperature Range (°C)	Note
1	±100	−10 to +70 (Standard)	1.8 to 50MHz
0	± 50		1.8 to 33MHz
S	± 30		

How to Order

KC7050B 25.0000 C 3 0 A 00
① ② ③ ④ ⑤ ⑥ ⑦

① Type
② Output Frequency
③ Output Type (CMOS)
④ Supply Voltage 5=5.0V, 3=3.3V
⑤ Frequency Tolerance (See Table at Left)
⑥ Symmetry/ Enable Function
A: 40/ 60%, Disable
B: 40/ 60%, Stand-by
⑦ Customer Special Model Suffix
(STD Specification is "00")

Symmetry/ Enable Function

Freq. (MHz)	Code KC7050B-C5	Code KC7050B-C3
1.8 to 39.9	A	A
to 50	A	B

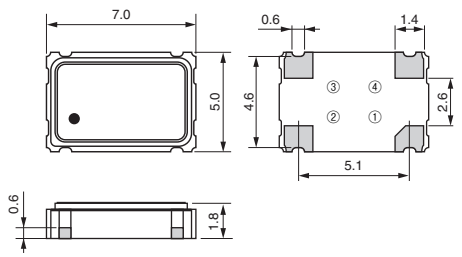
Specifications

Item	Symbol	Specifications KC7050Bxx.xxxxC5xA00 (FXO-31FH)	Specifications KC7050Bxx.xxxxC3xx00 (FXO-31FL)	Units
Output Frequency Range	fo	1.8 to 50		MHz
Frequency Tolerance (Overall)	f_tol	±30 (to 33MHz)		×10⁻⁶
		±50 (to 33MHz)		
		±100 (to 50MHz)		
Storage Temperature Range	T_stg	−40 to +85		°C
Operating Temperature Range	T_use	−10 to +70		°C
Max. Supply Voltage	—	7 max.		V
Supply Voltage	Vcc	5±0.5	3.3±0.3	V
Current Consumption	Icc	25 max. (1.8 to 15MHz)	18 max. (1.8 to 39.9MHz)	mA
		30 max. (15.1 to 32MHz)		
		45 max. (32.1 to 50MHz)	25 max. (40 to 50MHz)	
Stand-by Current	I_std	10 max.		µA
Symmetry	SYM	40 to 60@50%Vcc		%
Rise/ Fall Time	tr/ tf	10 max.		nS
Low Level Output Voltage	VOL	10% Vcc max.		V
High Level Output Voltage	VOH	90% Vcc min.		V
CMOS Load	L_CMOS	50 max.	20 max.	pF
Input Voltage Range	VIN	0 to Vcc	0 to Vcc	V
Low Level Input Voltage	VIL	0.8 max.	0.3 max.	V
High Level Input Voltage	VIH	2.2 min.	2.2 min.	V
Disable Time	t_dis	150 max.		nS
Enable Time	t_ena	5 max.		mS
Start-up Time	t_str	10 max.		mS

Note: All electrical characteristics are defined at the maximum load and operating temperature range.
Please contact us for inquiry about operating temperature range, available frequencies and other conditions.

Dimensions

(Unit: mm)



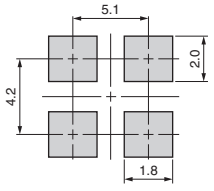
Plating: Ni+Au
Tolerance: ±0.1

Pad Connections	
①	INH
②	GND
③	Output
④	Vcc

Enable/ Disable Function	
Pad1	Pad3 (Output)
Open	Active
"H" Level	Active
"L" Level	High Z (No-Oscillation)

Recommended Land Pattern

(Unit: mm)



Note: A capacitor of value 0.01µF between Vcc and GND is recommended.