

# Clock Oscillators Surface Mount Type

## KC7050A-C5 Series



CMOS/ 5.0V/ 7.0x5.0mm



RoHS Compliant

### Features

- Miniature ceramic package
- Highly reliable with seam welding
- CMOS output
- Supply voltage  $V_{CC} = 5.0V$

Table 1

Stability Code	$\times 10^{-6}$	Operating Temperature Range (°C)	Note
0	$\pm 50$	-10 to +70	Standard specifications
S	$\pm 30$		
U	$\pm 25$		
F	$\pm 100$	-40 to +85	With only certain frequencies
G	$\pm 50$		
6	$\pm 50$	-40 to +105	

### How to Order

KC7050A 25.0000 C 5 0 D 00  
 ① ② ③ ④ ⑤ ⑥ ⑦

- ① Series
- ② Output Frequency
- ③ Output Type (CMOS)
- ④ Supply Voltage (5.0V)
- ⑤ Frequency Tolerance (See Table 1)
- ⑥ Symmetry/ INH Function (45/ 55%, Disable)
- ⑦ Customer Special Model Suffix (STD Specification is "00")

Packaging (Tape & Reel 1000 pcs./ reel)

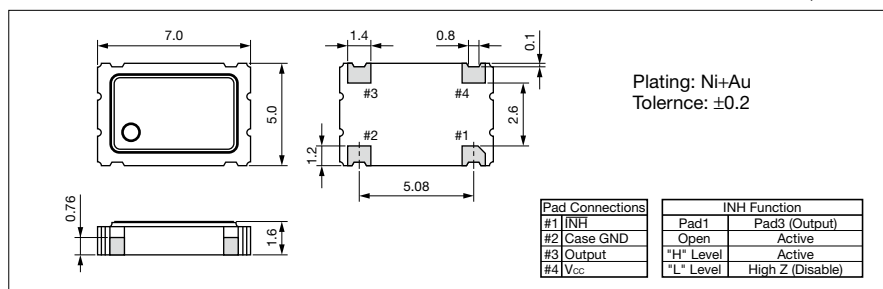
### Specifications

Item	Symbol	Conditions	Min.	Max.	Units	
Output Frequency Range	$f_o$		1.8	50	MHz	
Frequency Tolerance	$f_{tol}$	Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Aging (1 year @25°C), Shock and vibration	Op. Temp.: -40 to +85°C	-100	+100	$\times 10^{-6}$
			Op. Temp.: -10 to +70°C/ -40 to +85°C/ -40 to +105°C	-50	+50	
			Op. Temp.: -10 to +70°C	-30	+30	
			Op. Temp.: -10 to +70°C	-25	+25	
Storage Temperature Range	$T_{stg}$		-55	+125	°C	
Operating Temperature Range	$T_{use}$	Standard Specifications	-10	+70	°C	
		Extend (Option)	-40	+105		
Max. Supply Voltage	—		-0.5	+7.0	V	
Supply Voltage	$V_{CC}$	Freq. Tol.Code: 0, S, F	+4.5	+5.5	V	
		Freq. Tol.Code: U, G, 6	+4.75	+5.25		
Current Consumption (Maximum Loaded)	$I_{CC}$	$1.8 \leq f_o \leq 20MHz$	—	25	mA	
		$20 < f_o \leq 40MHz$	—	35		
		$40 < f_o \leq 50MHz$	—	50		
Disable Current	$I_{dis}$		—	20	mA	
Symmetry	SYM	@50% $V_{CC}$	45	55	%	
Rise/ Fall Time (10% $V_{CC}$ to 90% $V_{CC}$ Maximum Loaded)	$t_r / t_f$	$1.8 \leq f_o \leq 26MHz$	—	10	ns	
		$26 < f_o \leq 50MHz$	—	8		
Low Level Output Voltage	$V_{OL}$	$I_{OL} = 16mA$	—	10% $V_{CC}$	V	
High Level Output Voltage	$V_{OH}$	$I_{OH} = -16mA$	90% $V_{CC}$	—	V	
CMOS Load	$L_{CMOS}$	CMOS Output	—	50	pF	
Input Voltage Range	$V_{IN}$		0	$V_{CC}$	V	
Low Level Input Voltage	$V_{IL}$		—	0.8	V	
High Level Input Voltage	$V_{IH}$		2.2	—	V	
Disable Time	$t_{dis}$		—	100	ns	
Enable Time	$t_{ena}$		—	100	ns	
Start-up Time	$t_{str}$	@Minimum operating voltage to be 0 sec.	—	10	ms	
1 Sigma Jitter	$J_{Sigma}$	Measured with Wavecrest SIA-3000	$1.8 \leq f_o < 40MHz$	—	8	ps
			$40 \leq f_o \leq 50MHz$	—	5	
Peak to Peak Jitter	$J_{PK-PK}$	Measured with Wavecrest SIA-3000	$1.8 \leq f_o < 40MHz$	—	80	ps
			$40 \leq f_o \leq 50MHz$	—	40	

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)



### Recommended Land Pattern

(Unit: mm)

