

# Clock Oscillators Surface Mount Type KC7050A-C1 Series (K53-1C Series)



CMOS/ 1.8V/ 7.0x5.0mm



RoHS Compliant

## Features

- Miniature ceramic package
- Highly reliable with seam welding
- CMOS output
- Supply voltage  $V_{CC}=1.8V$   
Lower voltage available
- $\pm 25 \times 10^{-6}$ ,  $\pm 20 \times 10^{-6}$  available

Table 1

Stability Code	Stability $\times 10^{-6}$	Operating Temperature Range (°C)	Note
O	$\pm 50$	-10 to +70	Standard specifications
S	$\pm 30$		With only certain frequencies
U	$\pm 25$		
W	$\pm 20$		
F	$\pm 100$	-40 to +85	
G	$\pm 50$		

## How to Order

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

- ① Type (7.0x5.0mm SMD)
- ② Output Frequency
- ③ Output Type (CMOS)
- ④ Supply Voltage (1.8V)
- ⑤ Frequency Tolerance (See Table 1)
- ⑥ Symmetry/ INH Function (45/ 55%, Stand-by)
- ⑦ Customer Special Model Suffix (STD Specification is "00")

Packaging (Tape & Reel 1000 pcs./ reel)

## Specifications

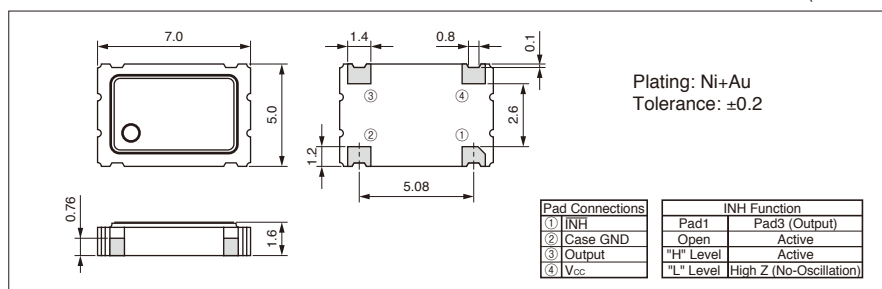
Item	Symbol	Conditions	Min.	Max.	Units	
Output Frequency Range	$f_o$		1.8	39.99	MHz	
Frequency Tolerance	$f_{tol}$	Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Aging (1 year @25°C), Shock and vibration	Op. Temp.: -40 to +85°C	-100	+100	$\times 10^{-6}$
			Op. Temp.: -10 to +70°C/ -40 to +85°C	-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	+85		
Max. Supply Voltage	—		-0.5	+3.6	V	
Supply Voltage	$V_{CC}$	Freq. Tol.Code: 0, S, F	1.71	1.89	V	
		Freq. Tol.Code: U, G, W	1.75	1.85		
Current Consumption (Maximum Loaded)	$I_{CC}$	1.8 < $f_o$ < 25MHz	—	3	mA	
Stand-by Current	$I_{std}$	25 < $f_o$ < 39.99MHz	—	4		
Symmetry	SYM	@50% $V_{CC}$	45	55	%	
Rise/ Fall Time (10% $V_{CC}$ to 90% $V_{CC}$ Maximum Loaded)	tr/ tf		—	9	nS	
Low Level Output Voltage	$V_{OL}$	$I_{OL} = -2.8mA$	—	10% $V_{CC}$	V	
High Level Output Voltage	$V_{OH}$	$I_{OH} = -2.8mA$	90% $V_{CC}$	—	V	
CMOS Load	$L_{CMOS}$	CMOS Output	—	15	pF	
Input Voltage Range	$V_{IN}$		0	$V_{CC}$	V	
Low Level Input Voltage	$V_{IL}$		—	30% $V_{CC}$	V	
High Level Input Voltage	$V_{IH}$		70% $V_{CC}$	—	V	
Disable Time	$t_{dis}$		—	150	nS	
Enable Time	$t_{ena}$		—	5	mS	
Start-up Time	$t_{str}$	@Minimum operating voltage to be 0 sec.	—	10	mS	
1 Sigma Jitter	J $\Sigma$	Measured with Wavecrest DTS-2079 VISI 6.3.1	—	8	pS	
Peak to Peak Jitter	J $PK-PK$		—	80	pS	

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)

