

Clock Oscillators Surface Mount Type KC7050A-C5 Series (K53-HC Series)



CMOS/ 5.0V/ 7.0×5.0mm



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	± 50	-10 to +70	Standard specifications
S	± 30		
U	± 25		
F	± 100	-40 to +85	With only certain frequencies
G	± 50		

How to Order

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

- ① Type (7.0×5.0mm SMD)
- 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)

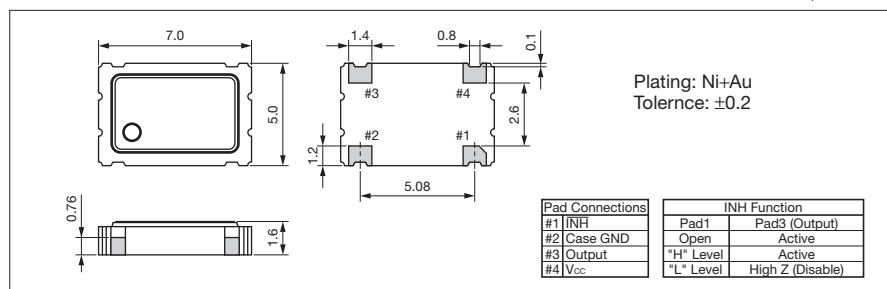
Specifications

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	×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	+7.0	V
Supply Voltage	V _{CC}	Freq. Tol.Code: 0, S, F		+4.5	+5.5	V
		Freq. Tol.Code: U, G		+4.75	+5.25	
Current Consumption (Maximum Loaded)	I _{CC}	1.8≤f _o ≤20MHz		—	25	mA
		20<f _o ≤40MHz		—	35	
		40<f _o ≤50MHz		—	50	
Disable Current	I _{dis}			—	30	mA
Symmetry	SYM	@50% V _{CC}		45	55	%
Rise/ Fall Time (10% V _{CC} to 90% V _{CC} Maximum Loaded)	tr/ tf	1.8≤f _o ≤26MHz		—	10	ns
		26<f _o ≤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≤f _o <40MHz	—	8	ps
			40≤f _o ≤50MHz	—	5	
Peak to Peak Jitter	J _{PK-PK}	Measured with Wavecrest SIA-3000	1.8≤f _o <40MHz	—	80	ps
			40≤f _o ≤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.

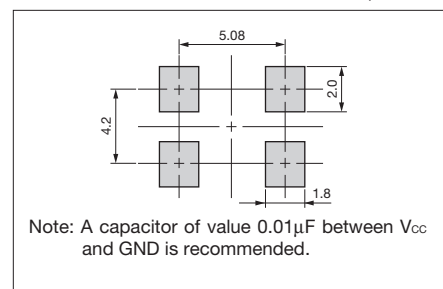
Dimensions

(Unit: mm)



Recommended Land Pattern

(Unit: mm)



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