

Clock Oscillators Surface Mount Type KC5032A-C1 Series (High Frequency)



CMOS/ 1.8V ~ 3.3V/ 5.0×3.2mm



RoHS Compliant

Features

- Wide operating voltage range 1.6 to 3.3V
- $\pm 25 \times 10^{-6}$ available
- Highly reliable with seam welding
- Miniature ceramic package
- CMOS output

Table 1

Freq. Tol. Code	Tolerance $\times 10^{-6}$	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		
6	± 50	-40 to +105	

How to Order

KC5032A 100.000 C 1 0 E 00
① ② ③ ④ ⑤ ⑥ ⑦

- ① Series
- ② Output Frequency
- ③ Output Type (CMOS)
- ④ Supply Voltage (1.8V, 2.5V, 3.3V Compatible)
- 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

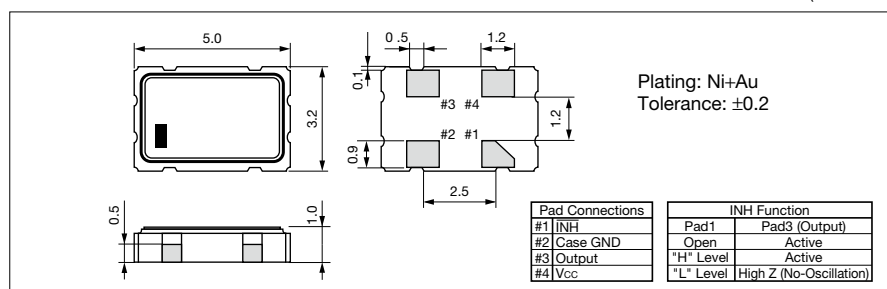
Item	Symbol	Conditions	Min.	Max.	Units	
Output Frequency Range	f_o	$f_o > 50\text{MHz}$	50	135	MHz	
Frequency Tolerance	f_{tol}	Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Aging (1 year @25°C), Shock and vibration	Op. Temp.: -40 to +85°C	-100	+100	$\times 10^{-6}$
			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}		-40	+105	°C	
Max. Supply Voltage	—		-0.3	+4.0	V	
Supply Voltage	V_{cc}		+1.6	+3.63	V	
Current Consumption (Loaded) (1.6< V_{cc} ≤2.0V)	I_{cc}	50< f_o ≤85MHz	—	10	mA	
		85< f_o ≤105MHz	—	15		
		105< f_o ≤135MHz	—	16		
Current Consumption (Loaded) (2.0< V_{cc} ≤2.8V)	I_{cc}	50< f_o ≤85MHz	—	14		
		85< f_o ≤105MHz	—	17		
		105< f_o ≤135MHz	—	18		
Current Consumption (Loaded) (2.8< V_{cc} ≤3.63V)	I_{cc}	50< f_o ≤85MHz	—	17		
		85< f_o ≤105MHz	—	19		
		105< f_o ≤135MHz	—	22		
Stand-by Current	I_{std}		—	10	μA	
Symmetry	SYM	@50% V_{cc}	45	55	%	
Rise/ Fall Time (10% V_{cc} to 90% V_{cc} Maximum Loaded)	t_r / t_f	1.6≤ V_{cc} ≤2V	—	3.5	ns	
		2< V_{cc} ≤2.8V	—	3.0		
		2.8< V_{cc} ≤3.63V	—	2.5		
Low Level Output Voltage	V_{OL}		—	10% V_{cc}	V	
High Level Output Voltage	V_{OH}		90% V_{cc}	—	V	
Output Load	L_{CMOS}	1.6≤ V_{cc} ≤3.63V	—	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 SIA-3000	50< f_o ≤100MHz	—	5	ps
			100< f_o ≤135MHz	—	4	
Peak to Peak Jitter	J_{PK-PK}	Measured with Wavecrest SIA-3000	50< f_o ≤100MHz	—	40	ps
			100< f_o ≤135MHz	—	30	

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)

