

CMOS/ 1.8V, 2.5V, 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	Tol. $\times 10^{-6}$	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**

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

- ① Type (5.0×3.2mm SMD)
- 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)

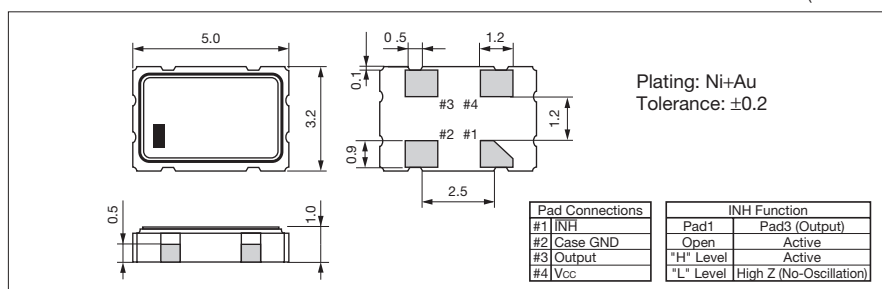
**Specifications**

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)		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)		50< $f_o$ <85MHz	—	17		
		85< $f_o$ <105MHz	—	19		
		105< $f_o$ <135MHz	—	22		
Stand-by Current	$I_{std}$		—	10	$\mu\text{A}$	
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	$J_{PK-PK}$		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)

