

**Pb Free**

**RoHS Compliant**

**Features**

- Miniature ceramic package
- Highly reliable with seam welding
- CMOS output
- Supply voltage  $V_{DD}=3.3V$
- $\pm 25 \times 10^{-6}$  available

**Table 1**

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

**How to Order**

KC7050C 25.0000 C 3 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 (3.3V)
- ⑤ Frequency Tolerance (See Table 1)
- ⑥ Symmetry/ Enable Function  
(E: 45/55%, Stand-by) (D: 45/55%, Disable)
- ⑦ Customer Special Model Suffix  
(STD Specification is "00")

Packaging (Tape & Reel 1000pcs./reel)

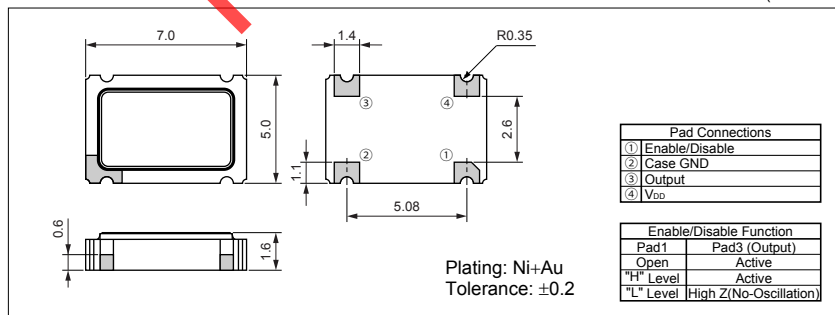
**Specifications**

Item	Symbol	Conditions	Min.	Max.	Units	
Output Frequency Range	Fo		1.5	80	MHz	
Frequency Tolerance	F <sub>tol</sub>	Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Aging (1year @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 / -40 to +85°C	-30	+30		
		Op. Temp.: -10 to +70°C	25	+25		
Storage Temperature Range	T <sub>stg</sub>		-55	+125	°C	
Operating Temperature Range	T <sub>use</sub>	Standard Specifications	-10	+70	°C	
		Extend (Option)	-40	+85		
Max. Supply Voltage	—		-0.5	+7	V	
Supply Voltage	V <sub>DD</sub>	Freq. Tol.Code: 0, S, F	2.97	3.63	V	
		Freq. Tol.Code: U, G	3.14	3.46		
Current Consumption (Maximum Loaded)	I <sub>DD</sub>	1.5 ≤ Fo ≤ 20MHz	—	10	mA	
		20 < Fo ≤ 40MHz	—	15		
		40 < Fo ≤ 60MHz	—	20		
		60 < Fo ≤ 80MHz	—	30		
Stand-by/Disable Current	I <sub>std</sub> /I <sub>dis</sub>	1.5 ≤ Fo ≤ 32MHz (Stand-by Function)	—	10	μA	
		32 < Fo ≤ 50MHz (Disable Function)	—	15	mA	
		50 < Fo ≤ 80MHz (Stand-by Function)	—	10	μA	
Symmetry	SYM	@50% V <sub>DD</sub>	45	55	%	
Rise/Fall Time (10% V <sub>DD</sub> to 90% V <sub>DD</sub> Maximum Loaded)	Tr/Tf	1.5 ≤ Fo ≤ 26MHz	—	10	nS	
		26 < Fo ≤ 45MHz	—	8		
		45 < Fo ≤ 80MHz	—	5		
Output Voltage-"L"	V <sub>OL</sub>	I <sub>OL</sub> =8mA	—	10% V <sub>DD</sub>	V	
Output Voltage-"H"	V <sub>OH</sub>	I <sub>OH</sub> =-8mA	90% V <sub>DD</sub>	—	V	
Output Load	L <sub>CMOS</sub>	CMOS Output	—	15	pF	
Input Voltage Range	V <sub>IN</sub>		0	V <sub>DD</sub>	V	
Input Voltage-"L"	V <sub>IL</sub>		—	30% V <sub>DD</sub>	V	
Input Voltage-"H"	V <sub>IH</sub>		70% V <sub>DD</sub>	—	V	
Disable Time	—		—	150	nS	
Enable Time	—	1.5 ≤ Fo ≤ 32MHz (Stand-by Function)	—	5	mS	
		32 < Fo ≤ 50MHz (Disable Function)	—	150	nS	
		50 < Fo ≤ 80MHz (Stand-by Function)	—	5	mS	
Start-up Time	ST	@ Minimum Operation Voltage to be 0 sec.	—	10	mS	

Note: All electrical characteristics are defined at the maximum load and operating temperature range.  
 Please contact us for inquiries about operating temperature range, available frequencies and other conditions.

**Dimensions**

(Unit : mm)



**Recommended Land Pattern**

(Unit : mm)

