

Ph Free

RoHS Compliant

**Features**

- Miniature ceramic package
- Highly reliable with seam welding
- CMOS output
- Supply voltage  $V_{CC}=2.5V$   
Lower voltage available
- $\pm 25 \times 10^{-6}$  available

**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	$\pm 25$	-40 to +85	With only certain frequencies
F	$\pm 100$		
G	$\pm 50$		

**How to Order**

**KC3225A 25.0000 C 2 0 E 00**  
 ① ② ③ ④ ⑤ ⑥ ⑦

- ① Type (3.2×2.5mm SMD)
- ② Output Frequency
- ③ Output Type (CMOS)
- ④ Supply Voltage (2.5V)
- ⑤ Frequency Tolerance (See Table 1)
- ⑥ Symmetry/ Enable Function (45/ 55%, Stand-by)
- ⑦ Customer Special Model Suffix (STD Specification is "00")

Packaging (Tape & Reel 2000 pcs./ reel)

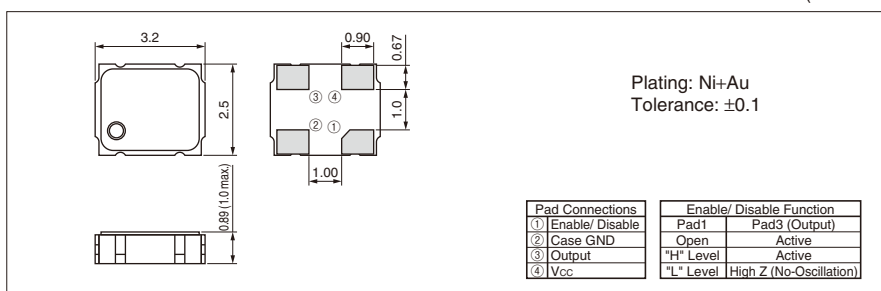
**Specifications**

Item	Symbol	Conditions	Min.	Max.	Units	
Output Frequency Range	$f_o$		1.5	125	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	+7	V	
Supply Voltage	$V_{CC}$	Freq. Tol.Code: 0, S, F	2.38	2.62	V	
		Freq. Tol.Code: U, G	2.43	2.57		
Current Consumption (Maximum Loaded)	$I_{CC}$	1.5< $f_o$ <26MHz	—	4	mA	
		26< $f_o$ <50MHz	—	6		
		50< $f_o$ <67.5MHz	—	9		
		67.5< $f_o$ <95MHz	—	14		
		95< $f_o$ <125MHz	—	18		
Stand-by Current	$I_{std}$		—	10	$\mu A$	
Symmetry	SYM	@ 50% $V_{CC}$	45	55	%	
Rise/ Fall Time (10% $V_{CC}$ to 90% $V_{CC}$ Maximum Loaded)	$t_r/ t_f$	1.5< $f_o$ <67.5MHz	—	6	nS	
		67.5< $f_o$ <125MHz	—	4		
Low Level Output Voltage	$V_{OL}$	$I_{OL}=-4mA$	—	10% $V_{CC}$	V	
High Level Output Voltage	$V_{OH}$	$I_{OH}=-4mA$	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	1.5< $f_o$ <60MHz	—	8	pS
			60< $f_o$ <125MHz	—	5	pS
Peak to Peak Jitter	$J_{PK-PK}$		1.5< $f_o$ <60MHz	—	80	pS
			60< $f_o$ <125MHz	—	40	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)

