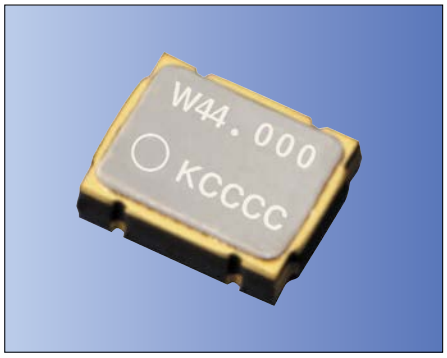
Clock Oscillators Surface Mount Type
KC3225A-C3 Series

KYOCERA

CMOS/ 3.3V/ 3.2×2.5mm



RoHS Compliant

Features

- Miniature ceramic package
- Highly reliable with seam welding
- CMOS output
- Supply voltage Vcc = 3.3V
- ±25×10⁻⁶ available

Table 1

Freq. Tol. Code	× 10⁻⁶	Operating Temperature Range (°C)	Note
0	± 50	−10 to +70	Standard specifications
S	± 30		With only certain frequencies
U	± 25		
F	±100	−40 to +85	
G	± 50		
6	± 50	−40 to +105	

How to Order

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

① Series
② Output Frequency
③ Output Type (CMOS)
④ Supply Voltage (3.3V)
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 2000 pcs./ reel)

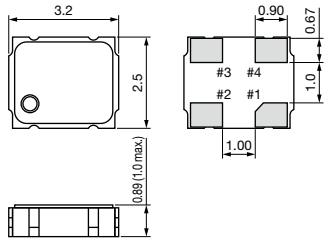
Specifications

Item	Symbol	Conditions		Min.	Max.	Units
Output Frequency Range	fo			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	×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	Standard Specifications		−10	+70	°C
		Extend (Option)		−40	+105	
Max. Supply Voltage	—			−0.5	+7.0	V
Supply Voltage	Vcc	Freq. Tol.Code: 0, S, F		+2.97	+3.63	V
		Freq. Tol.Code: U, G, 6		+3.14	+3.46	
Current Consumption (Maximum Loaded)	Icc	1.5≤fo≤26MHz		—	6	mA
		26<fo≤50MHz		—	8	
		50<fo≤67.5MHz		—	12	
		67.5<fo≤95MHz		—	20	
		95<fo≤125MHz		—	25	
Stand-by Current	I_std			—	10	µA
Symmetry	SYM	@50% Vcc		45	55	%
Rise/ Fall Time (10% Vcc to 90% Vcc Maximum Loaded)	tr/ tf	1.5≤fo≤67.5MHz		—	5	ns
		67.5<fo≤125MHz		—	3	
Low Level Output Voltage	VOL	IOL = 4mA		—	10% Vcc	V
High Level Output Voltage	VOH	IOH = −4mA		90% Vcc	—	V
CMOS Load	L_CMOS	CMOS Output		—	15	pF
Input Voltage Range	VIN			0	Vcc	V
Low Level Input Voltage	VIL			—	30% Vcc	V
High Level Input Voltage	VIH			70% Vcc	—	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	Jsigma	Measured with Wavecrest SIA-3000	1.5≤fo≤60MHz	—	8	ps
			60<fo≤125MHz	—	5	
Peak to Peak Jitter	JPK-PK	Measured with Wavecrest SIA-3000	1.5≤fo≤60MHz	—	80	ps
			60<fo≤125MHz	—	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)



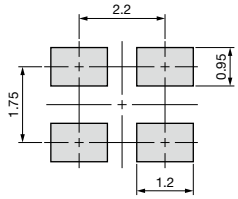
Plating: Ni+Au
Tolerance: ±0.1

Pad Connections	
#1	INH
#2	Case GND
#3	Output
#4	Vcc

INH Function	
Pad1	Pad3 (Output)
Open	Active
"H" Level	Active
"L" Level	High Z (No-Oscillation)

Recommended Land Pattern

(Unit: mm)



Note: A capacitor of value 0.01µF between Vcc and GND is recommended.