

# Clock Oscillators Surface Mount Type

## KC3225L-L2/ KC3225L-L3 Series



LVDS/ 3.3V or 2.5V/ 3.2×2.5mm



RoHS Compliant

### Features

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

Table 1

Freq. Tol. Code	Tol. $\times 10^{-6}$	Operating Temperature Range (°C)	Note
0	$\pm 50$	0 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

KC3225L 125.000 L 3 0 J 00  
 ① ② ③ ④ ⑤ ⑥ ⑦

- ① Series
- ② Output Frequency
- ③ Output Type (LVDS)
- ④ Supply Voltage (2 : 2.5V or 3 : 3.3V)
- ⑤ Frequency Tolerance (See Table 1)
- ⑥ Symmetry/ INH Function (45/ 55%, Stand-by)  
J : Low Phase Noise
- ⑦ Customer Special Model Suffix (STD Specification is "00")

Packaging (Tape & Reel 1000 pcs./ reel)

### Specifications

Item	Symbol	Specifications		Units	Conditions
		KC3225L-L2	KC3225L-L3		
Output Frequency Range <sup>Note1</sup>	f <sub>o</sub>	25 to 175		MHz	
Frequency Tolerance	f <sub>tol</sub>	$\pm 50/ -40$ to +105°C		ppm	Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Aging (1 year @25°C), Shock and vibration
		$\pm 100/ -40$ to +85°C			
		$\pm 50/ -40$ to +85°C			
		$\pm 50/ 0$ to +70°C			
		$\pm 30/ 0$ to +70°C			
		$\pm 25/ 0$ to +70°C			
Storage Temperature Range	T <sub>stg</sub>	-55 to +125		°C	
Operating Temperature Range	T <sub>use</sub>	0 to +70		°C	Standard Specifications Extend (Option)
		-40 to +105			
Max. Supply Voltage	—	-0.5 to +5.0		V	
Supply Voltage	V <sub>CC</sub>	+2.375 to +2.625	+2.97 to +3.63	V	
Current Consumption	I <sub>CC</sub>	70 max.		mA	
Stand-by Current	I <sub>std</sub>	30 max.		μA	
Symmetry	SYM	50±5		%	100ohm @crossing point
Rise/ Fall Time (20% V <sub>CC</sub> to 80% V <sub>CC</sub> Maximum Loaded)	tr/ tf	0.6 max.		ns	100ohm
Low Level Output Voltage <sup>Note2</sup>	V <sub>OL</sub>	0.9 min. Typ.:1.1		V	
High Level Output Voltage <sup>Note2</sup>	V <sub>OH</sub>	1.6 max. Typ.:1.43		V	
Differential Output Voltage <sup>Note2</sup>	V <sub>OD</sub>	247 to 454 Typ.:330		mV	
Differential Output Voltage Error <sup>Note2</sup>	dV <sub>OD</sub>	50 max.		mV	dV <sub>OD</sub> =  V <sub>OD1</sub> - V <sub>OD2</sub>
Offset Voltage	V <sub>OS</sub>	1.125 to 1.375		V	
Offset Voltage Error	dV <sub>OS</sub>	50 max.		mV	dV <sub>OS</sub> =  V <sub>OS1</sub> - V <sub>OS2</sub>
Output Load	RL	100		ohm	LVDS Output
Input Voltage Range	V <sub>IN</sub>	0 to V <sub>CC</sub>		V	
Low Level Input Voltage	V <sub>IL</sub>	30% V <sub>CC</sub> max.		V	
High Level Input Voltage	V <sub>IH</sub>	70% V <sub>CC</sub> min.		V	
Disable Time	t <sub>dis</sub>	200 max.		ns	
Enable Time	t <sub>ena</sub>	10 max.		ms	
Start-up Time	t <sub>str</sub>	10 max.		ms	@Minimum operating voltage to be 0 sec.
Deterministic Jitter	DJ	2 max.		ps	
1 Sigma Jitter	J <sub>Sigma</sub>	4 max.		ps	Measured with Wavecrest SIA-3000
Peak to Peak Jitter	J <sub>PK-PK</sub>	30 max.		ps	

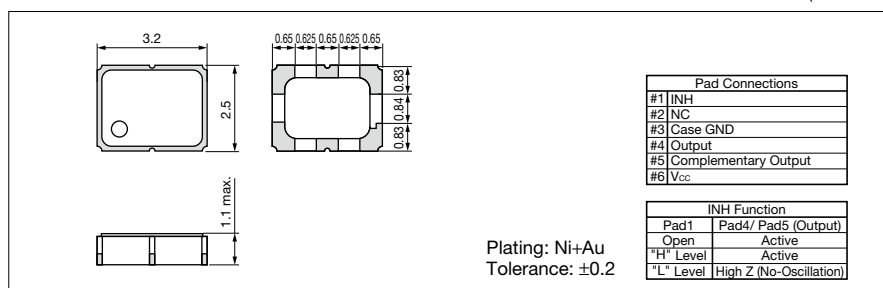
Note : All electrical characteristics are defined at the maximum load and operating temperature range.

Note1: Please contact us for inquiry about operating temperature range, available frequencies and other conditions.

Note2: DC characteristic

### Dimensions

(Unit: mm)



### Recommended Land Pattern

(Unit: mm)

