



**Pb Free**

**RoHS Compliant**

**Features**

- Low Voltage 2.5V
- Low Jitter
- LVDS output
- Operation at Fundamental high frequency

**Table 1**

Freq. Tol. Code	Tol. × 10 <sup>-6</sup>	Operating Temperature Range (°C)	Note
1	±100	0 to +70	Standard specifications

**How to Order**

**KC7050S 312.500 L 2 1 E 00**  
 ① ② ③ ④ ⑤ ⑥ ⑦

- ① Type (7.0×5.0mm SMD)
- ② Output Frequency
- ③ Output Type (LVDS)
- 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 1000 pcs./ reel)

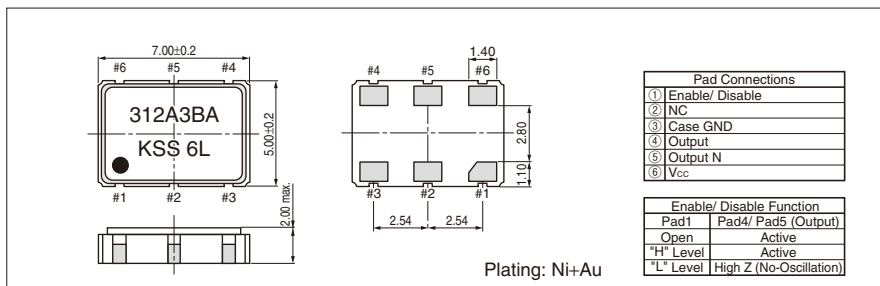
**Specifications**

Item	Symbol	Conditions	Min.	Max.	Units
Output Frequency Range	f <sub>o</sub>		50	700	MHz
Frequency Tolerance	f <sub>tol</sub>	Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Aging (1 year @25°C), Shock and vibration Op. Temp.: 0 to +70°C	-100	+100	×10 <sup>-6</sup>
Storage Temperature Range	T <sub>stg</sub>		-55	+125	°C
Operating Temperature Range	T <sub>use</sub>	Standard Specifications	0	+70	°C
Max. Supply Voltage	—		-0.5	+5	V
Supply Voltage	V <sub>cc</sub>	2.5V	2.38	2.62	V
Current Consumption (Standard Loaded)	I <sub>cc</sub>		—	70	mA
Symmetry	SYM		45	55	%
Rise/ Fall Time (20% to 80% Output Level Standard Loaded)	tr/ tf		—	600	pS
Low Level Output Voltage	V <sub>OL</sub>	Typ. 1.1V	0.9	—	V
High Level Output Voltage	V <sub>OH</sub>	Typ. 1.43V	—	1.6	V
Differential Output Voltage	V <sub>OD</sub>	Typ. 330mV	247	454	mV
Differential Output Voltage Error	dV <sub>OD</sub>	dV <sub>OD</sub> = V <sub>OD1</sub> -V <sub>OD2</sub>	—	50	mV
Offset Voltage	V <sub>OS</sub>	Typ. 1.25V	1.125	1.375	V
Offset Voltage Error	dV <sub>OS</sub>	dV <sub>OS</sub> = V <sub>OS1</sub> -V <sub>OS2</sub>	—	50	mV
Output Load	RL	LVDS Output	100		ohm
Input Voltage Range	V <sub>IN</sub>		0	V <sub>cc</sub>	V
Low Level Input Voltage	V <sub>IL</sub>		—	30% V <sub>cc</sub>	V
High Level Input Voltage	V <sub>IH</sub>		70% V <sub>cc</sub>	—	V
Disable Time	t <sub>dis</sub>		—	200	nS
Enable Time	t <sub>ena</sub>		—	10	mS
Start-up Time	t <sub>str</sub>	@ Minimum operating voltage to be 0 sec.	—	10	mS
Deterministic Jitter (DJ)	DJ	Measured with Wavecrest DTS-2079 VIS/ 6.3.1	0.2 typ.		pS
1 Sigma Jitter	J <sub>Sigma</sub>		2 typ.		pS
Peak to Peak Jitter	J <sub>PK-PK</sub>		20 typ.		pS

Note: All electrical characteristics are defined at the standard 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)

