

## Clock Oscillator (时钟振荡器) - KD326C/KD506C/KD706C

### Feature 特征

HCSL output with miniature package with low phase jitter 0.2ps typ. HCSL 输出, 小封装尺寸低相位抖动

### Applications 应用

Mobile communications, radar navigation, digital products, HD monitoring, precision instruments 移动通信, 雷达导航, 数码产品, 高清监控, 精密仪器等

### General Specifications 规格参考

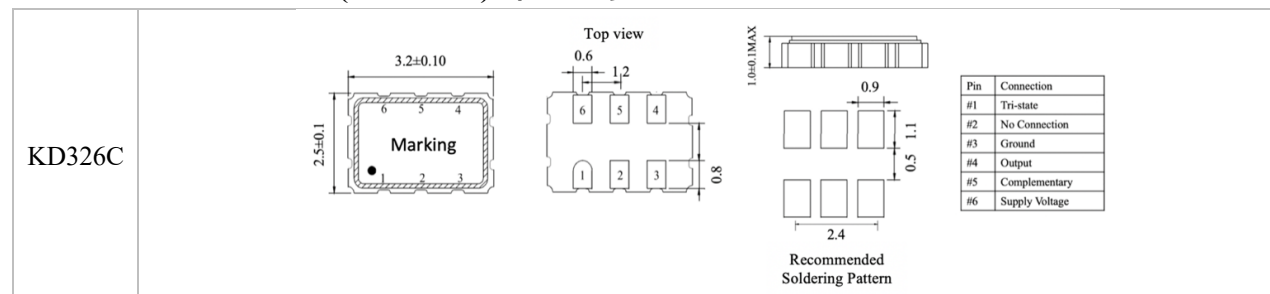


PARAMETER	性能参数	KD326C KD506C KD706C	
Frequency Range	频率范围	13.5MHz ~ 200MHz	100MHz~250MHz
Supply Voltage	供给电压	+1.8V/2.5V/3.3V(±10%)	
Output Logic	输出波形	HCSL	
Frequency Tolerance	调整频差	±30ppm max	
Frequency Stability	温度频差	见下表	
Operating Temperature Range	温度范围	见下表	
Current Consumption (15pF load)	工作电流	30mA max	32mA typ.; 40mA max
Output Load	输出负载	50Ω to ground on each output	
Start-up Time	起振时间	10ms max	
Duty Cycle	占空比	45~55%	
Rise & Fall Time	上升下降时间	0.8ns max	
Output Enable/Disable Time	启动/禁用时间	Enable: 10ms max Disable: 0.2μs max	
Output Logic High "1" Output Logic Low "0"	输出电平 高 输出电平 低	高=400mV min, 750mV typ. 低=-150mV~150mV @1.8V 高=550mV~850mV 低=-150mV~150mV @2.5V 高=550mV~850mV 低=-150mV~150mV @3.3V	
Output Voltage Swing	输出电压波动	400mV min. @1.8V; 500mV min. @2.5V; 600mV min. @3.3V	
RMS Phase Jitter [12KHz~20MHz]	抖动	0.2ps typ.; 0.5ps max.	50fs typ.; 300fs max.
Storage Temperature Range	储存温度范围	-55°C ~ +125°C	
Aging Per Year	年老化率	±3ppm ~ ±5ppm/year	

Frequency Stability 温度频差 VS Operating Temperature Range 温度范围						
Temp. Code	Temp. \ppm	±10	±20	±30	±50	±100
B	-20~70°C	○	○	○	○	○
C	-40~85°C		○	○	○	○
D	-55~85°C			○	○	○
E	-55~105°C				○	○
F	-55~125°C				○	○

NOTE: Please consult for other specifications 若有其它规格需求请告知

### Outline Dimensions (Unit: mm) 外形尺寸

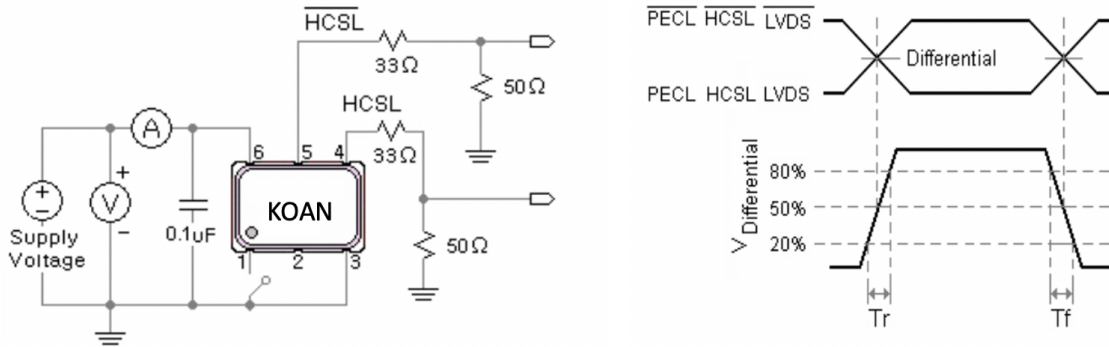


总部地址：北京市海淀区知春路豪景大厦 B 座 802 室

公司官网：www.koan-xtal.com 联系电话：010-62101903 传真：010-62101561

<p>KD506C</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Top view</p> </div> <div style="text-align: center;"> <p>Top view</p> </div> <div style="text-align: center;"> <p>Recommended Soldering Pattern</p> </div> </div> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Pin</th> <th>Connection</th> </tr> </thead> <tbody> <tr> <td>#1</td> <td>OE</td> </tr> <tr> <td>#2</td> <td>No Connection</td> </tr> <tr> <td>#3</td> <td>Ground</td> </tr> <tr> <td>#4</td> <td>Output</td> </tr> <tr> <td>#5</td> <td>Complementary</td> </tr> <tr> <td>#6</td> <td>Supply Voltage</td> </tr> </tbody> </table>	Pin	Connection	#1	OE	#2	No Connection	#3	Ground	#4	Output	#5	Complementary	#6	Supply Voltage
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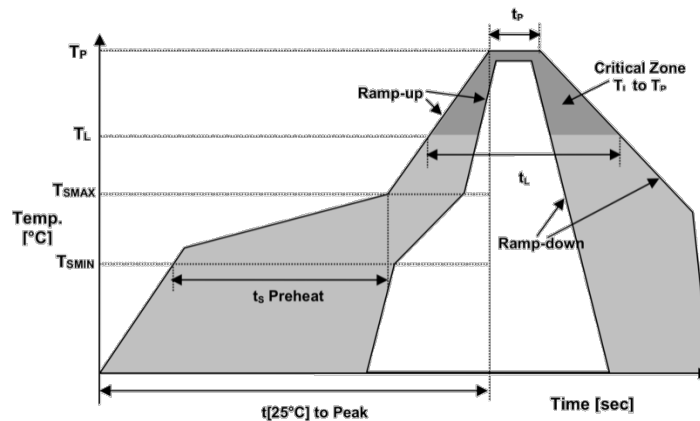
## ■ Test Circuits and Output Waveforms 测试电路图以及输出波形



## ■ Part Number Guide 产品编号

KD326C	-	20.000	-	33	-	C	-	30	-	
封装	-	标称频率	-	工作电压	-	工作温度	-	温度频差	-	特殊要求
‘KD’:产品系列 K=KOAN; D=差分 ‘326’:封装尺寸 SMD 3.2x2.5mm 6 pad ‘C’: 输出波形 HCSL				18=1.8V 25=2.5V 33=3.3V		B: -20~+70°C C: -40~+85°C D: -55~+85°C E: -55~+105°C F: -55~+125°C		10 = ±10ppm 20 = ±20ppm 30 = ±30ppm 50 = ±50ppm 100 = ±100ppm		NS=特殊要求

## ■ Reflow Profile 回流焊



Temperature Min Preheat	最低预热温度	$T_{smin}$	150°C
Temperature Max preheat	最高预热温度	$T_{smax}$	200°C
Time ( $T_{smin}$ to $T_{smax}$ )	时间差	$T_s$	60~120 sec
Temperature	温度	$T_L$	217°C
Peak Temperature	最高温	$T_p$	260 °C
Ramp-up Rate	升温速度	$R_{up}$	3°C/sec max
Ramp-down Rate	降温速度	$R_{down}$	6°C/sec max
Time within 5°C of Peak Temperature	最高温度停留时间	$t_p$	30 sec
Time t[25°C] to peak temperature	25度到最高温度时间	t[25°C] to peak	480 sec
Time	时间	$t_L$	60~150 sec

## ■ Revision 版本

版本 Rev.	修改页 Revise Page	修改内容 Revise Contents	日期 Date	修改人 Reviser
0.0	N/A	Initial issue	2021.12.27	JH
0.1	1	Specs Update	2024.3.19	JZ