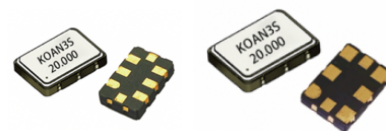


时钟振荡器 Clock Oscillator: KJ328D KJ508D KJ708D

■ Feature 特征

- Programmable differential output, supports CMOS, PECL, LVDS, CML, HCSL logic types 可编程差分输出逻辑
- High frequency supports up to 2.1GHz, ideal for demanding high-speed digital system 支持高达 2.1GHz 的高频输出，用于高速数字通信系统
- Ultra-low phase jitter, 150fs RMS typical, ensuring excellent timing precision 超低相位抖动，出色的时钟精度
- 8-pin packages enhances power integrity and signal stability at high frequencies 8 引脚封装优化电源完整性，高频下的信号稳定性
- Short lead time, suitable for fast design cycles and prototyping 交期短，适合快速开发和产品打样



■ General Specifications 规格参考

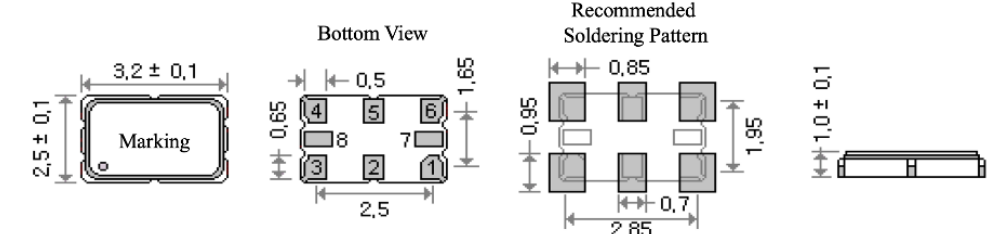
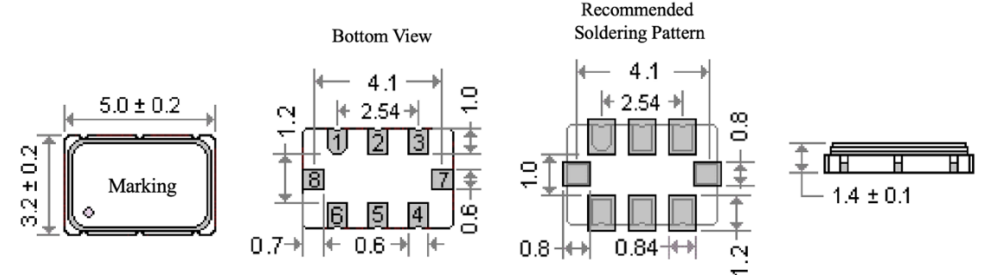
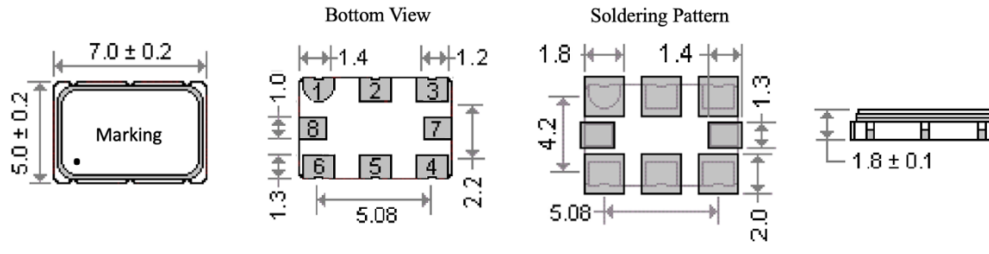
PARAMETER	性能参数	KJ328D KJ508D KJ708D			
Frequency Range	频率范围	150MHz ~ 2.1GHz			
Supply Voltage	供给电压	+1.8V/2.5V/3.3V (±10%)			
Output Logic	输出波形	LVDS			
Frequency Tolerance	调整频差	±30ppm max			
Frequency Stability	温度频差	见下表			
Operating Temperature Range	温度范围	见下表			
Current Consumption	工作电流	75mA typ.; 90mA max			
Output Load	输出负载	100Ω between output and comp. 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: 2.5ms max Disable: 10μs max			
Output Logic High "1"	输出电平 高	1.4V typ. 1.6V max			
Output Logic Low "0"	输出电平 低	1.1V typ. 0.9V min			
RMS Jitter	抖动	156.250MHz 159 fsec.	491.520MHz 155 fsec.	644.530MHz 151 fsec.	2,000MHz 163 fsec.
Storage Temperature Range	储存温度范围	-55°C ~ +125°C			
Aging Per Year	老化率	±3ppm ~ ±5ppm/year			

Frequency Stability 温度频差 VS Operating Temperature Range 温度范围

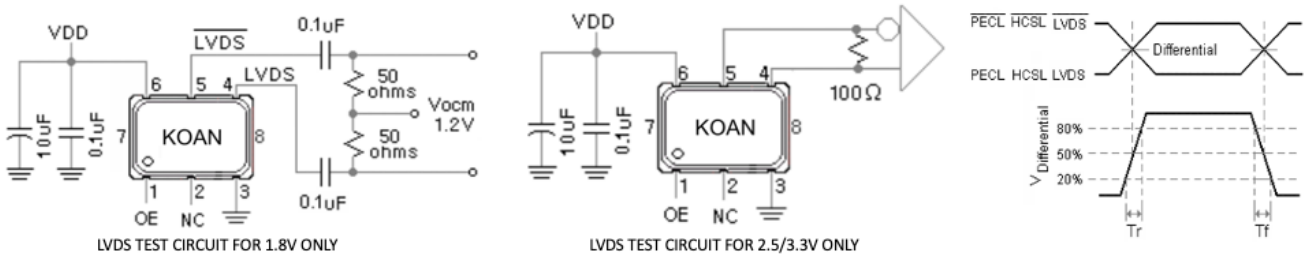
Temp. Code	Temp.\ppm	±10	±20	±30	±50	±100
B	-20~70°C	○	○	○	○	○
C	-40~85°C		○	○	○	○
D	-55~85°C			○	○	○
E	-55~105°C				○	○
F	-55~125°C				○	○

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

KJ328D																													
KJ508D																													
KJ708D																													
	<table><tr><th>Pin</th><th>Connection</th></tr><tr><td>#1</td><td>Output Enable (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><tr><td>#7</td><td>Do not Connect</td></tr><tr><td>#8</td><td>Do not Connect</td></tr></table> <table><tr><th colspan="2">Enable/Disable Function</th></tr><tr><th>Input (#1)</th><th>Output (#4, #5)</th></tr><tr><td>Open</td><td>Enable</td></tr><tr><td>V_{IH} ≥ 80%V_{dd}</td><td>Enable</td></tr><tr><td>V_{IL} ≤ 20%V_{dd}</td><td>Disable</td></tr></table>	Pin	Connection	#1	Output Enable (OE)	#2	No Connection	#3	Ground	#4	Output	#5	Complementary	#6	Supply Voltage	#7	Do not Connect	#8	Do not Connect	Enable/Disable Function		Input (#1)	Output (#4, #5)	Open	Enable	V _{IH} ≥ 80%V _{dd}	Enable	V _{IL} ≤ 20%V _{dd}	Disable
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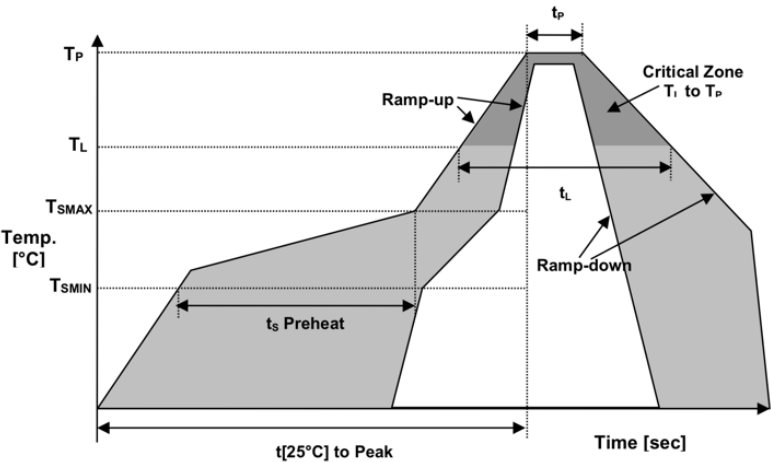
Test Circuit and Output Waveforms 测试电路图及输出波形



Part Number Guide 产品编号

<u>KJ328D</u>	-	<u>622.080</u>	-	<u>33</u>	-	<u>C</u>	-	<u>30</u>	-	<u>NS</u>
↓		↓		↓		↓		↓		↓
型号	-	标称频率	-	工作电压	-	工作温度	-	温度频差	-	特殊要求
‘KJ’: 低抖动晶振						B: -20~+70℃		10 = ±10ppm		‘NS’:特殊要求
‘328’:封装尺寸				18=1.8V		C: -40~+85℃		20 = ±20ppm		
SMD 3.2x2.5mm 8 pad		(In MHz)		25=2.5V		D: -55~+85℃		30 = ±30ppm		
‘D’: 输出波形				33=3.3V		E: -55~+105℃		50 = ±50ppm		
LVDS						F: -55~+125℃		100 = ±100ppm		

Reflow Profile 回流焊



Temperature Min Preheat	最低预热温度	Tsmin	150°C
Temperature Max preheat	最高预热温度	Tsmax	200°C
Time (Tsmin to Tsmax)	时间差	Ts	60~120 sec
Temperature	温度	TL	217°C
Peak Temperature	最高温	Tp	260 °C
Ramp-up Rate	升温速度	Rup	3°C/sec max
Ramp-down Rate	降温速度	Rdown	6°C/sec max
Time within 5°C of Peak Temperature	最高温度停留时间	tp	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	tL	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	N/A	Initial issue	2021.12.27	JH
1.0	2	Pin description	2022.06.20	JZ
1.1	1	Specs update	2024.03.19	JZ