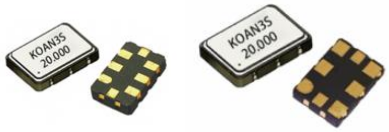
时钟振荡器 Clock Oscillator: KJ328D KJ508D KJ708D

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

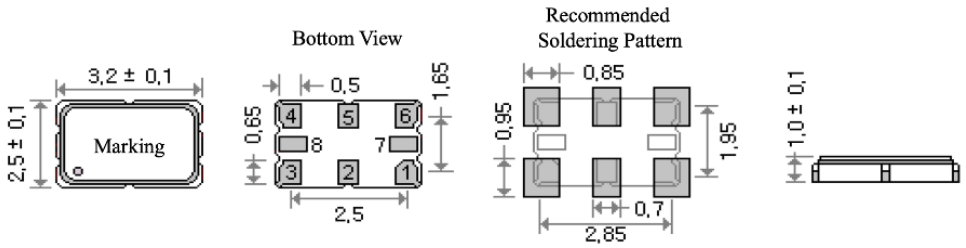
PARAMETER	性能参数	KJ328D KJ508D KJ708D
Frequency Range	频率范围	150MHz ~ 2.1GHz
Supply Voltage	供给电压	+1.8V/2.5V/3.3V (±10%)
Output Logic	输出波形	LVDS
Frequency Tolerance	调整频差	±30ppm max.
Frequency Stability	温度频差	见下表
Operating Temperature Range	温度范围	见下表
Current Consumption	工作电流	90mA max.
Output Load	输出负载	100Ω between output and comp. output
Start-up Time	起振时间	10ms max.
Duty Cycle	占空比	40~60%
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" Output Logic Low "0"	输出电平 高 输出电平 低	1.4V typ. 1.6V max. 1.1V typ. 0.9V min.
RMS Jitter	抖动	150 fs typ.; 200fs max. (12KHz~20MHz)
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	±20	±25	±30	±50	±100
B	-20~70°C	○	○	○	○	○
C	-40~85°C		○	○	○	○
E	-40~105°C				○	○
F	-55~125°C					○

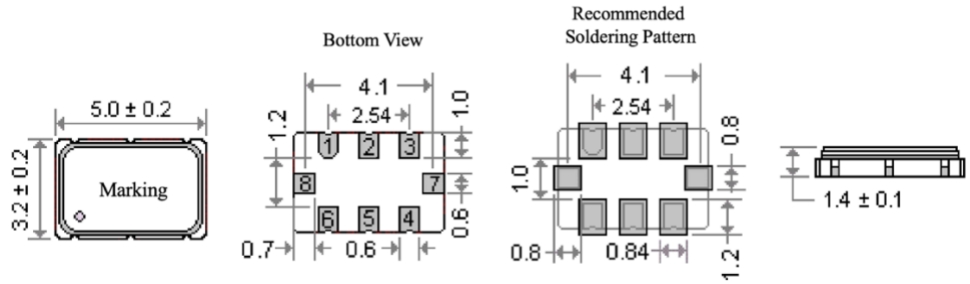
NOTE: Please consult for other specifications 若有其它规格需求请告知

■ Outline Dimensions (Unit: mm) 外形尺寸

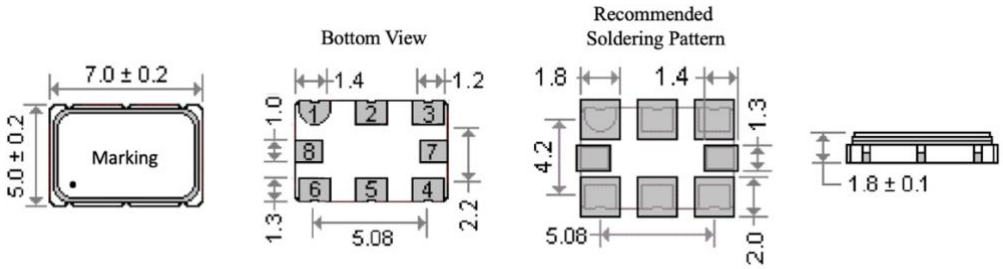
KJ328D



KJ508D



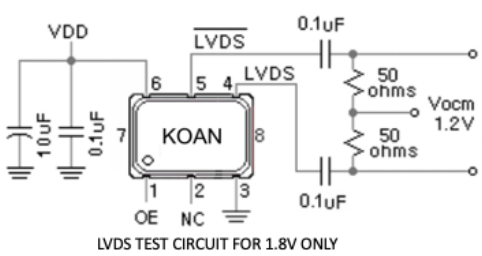
KJ708D



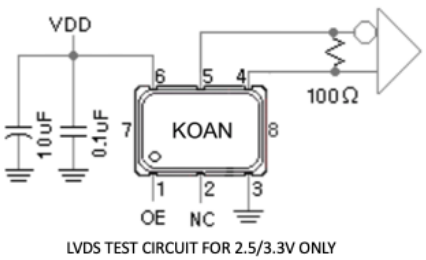
Pin	Connection
#1	Output Enable (OE)
#2	No Connection
#3	Ground
#4	Output
#5	Complementary
#6	Supply Voltage
#7	Do not Connect
#8	Do not Connect

Enable/Disable Function	
Input (#1)	Output (#4, #5)
Open	Enable
V_{IH} ≥80%V_{dd}	Enable
V_{IL} ≤20%V_{dd}	Disable

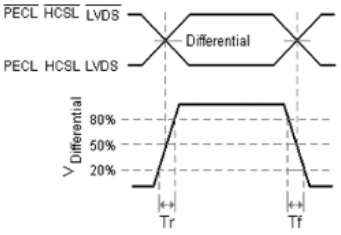
■ Test Circuit and Output Waveforms 测试电路图及输出波形



LVDS TEST CIRCUIT FOR 1.8V ONLY



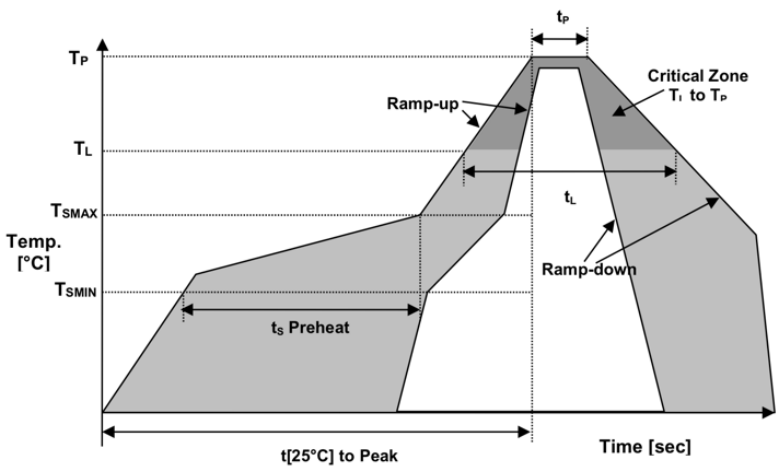
LVDS TEST CIRCUIT FOR 2.5/3.3V ONLY



■ Part Number Guide 产品编号

KJ328D	-	622.080	-	33	-	C	-	30	-	NS
↓		↓		↓		↓		↓		↓
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 **'328':**封装尺寸 SMD 3.2x2.5mm 8 pad **'D'**: 输出波形 LVDS		(In MHz)		18=1.8V 25=2.5V 33=3.3V		B: -20~+70°C C: -40~+85°C E: -40~+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