

Clock Oscillator (时钟振荡器) - KJ326D/KJ506D/KJ706D

Feature 特征

Low phase jitter 0.6pS 低相位抖动;

Low current consumption 24mA for 622.080MHz @ 3.3V 低电流消耗



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

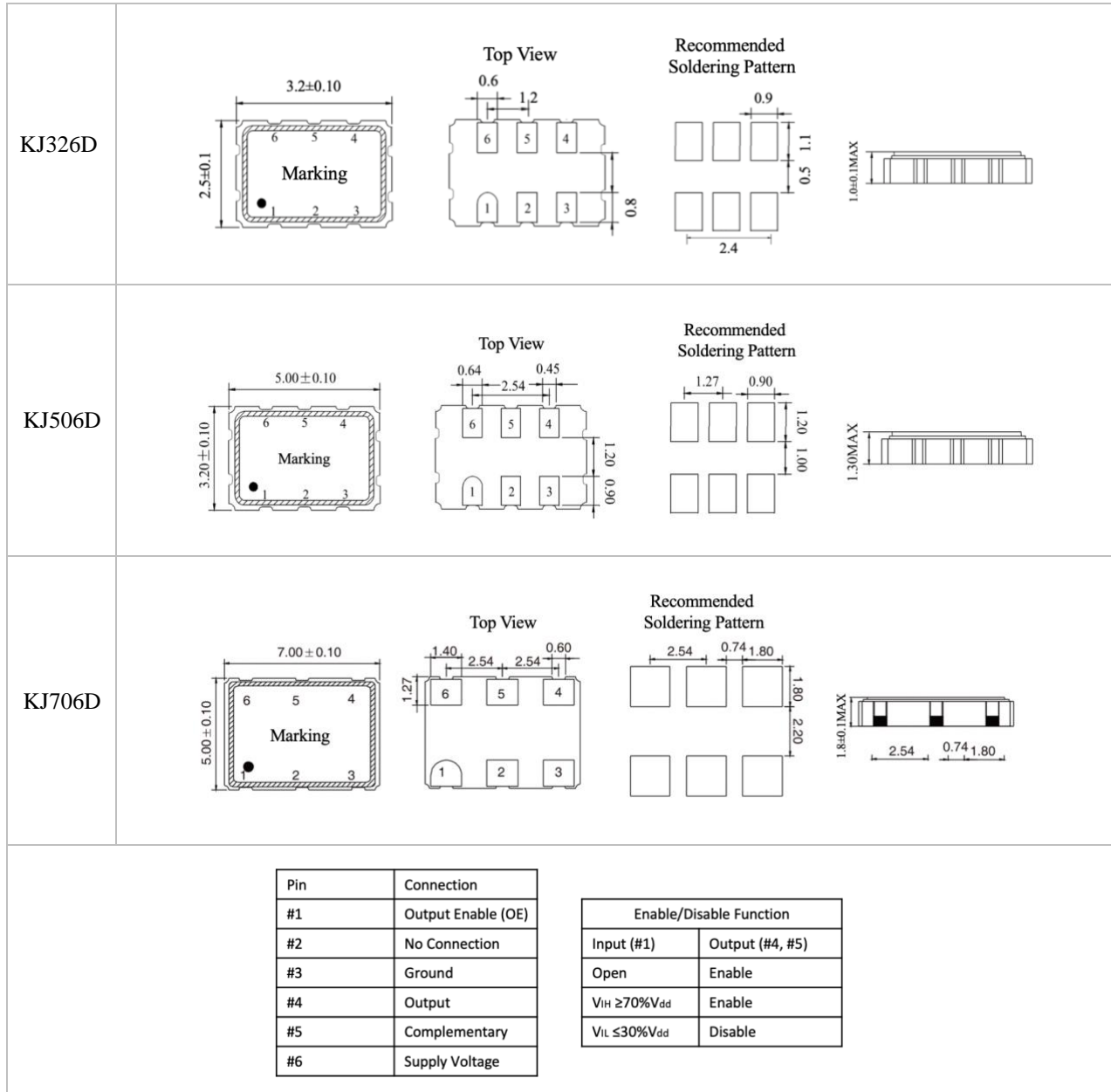
General Specifications 规格参考

| PARAMETER | 性能参数 | KJ326D KJ506D KJ706D | |
|-----------------------------|---------|----------------------------------------|----------------------------------------|
| Frequency Range | 频率范围 | 100MHz~250MHz | 150MHz ~ 1.5GHz |
| Supply Voltage | 供给电压 | +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 | 22mA typ.; 30mA max | 20~68mA |
| Output Load | 输出负载 | 100Ω between output and comp. output | |
| Start-up Time | 起振时间 | 1ms typ.; 5ms max | 5ms typ.; 10ms max |
| Duty Cycle | 占空比 | 45~55% | |
| Rise & Fall Time | 上升下降时间 | 0.2ns typ.; 0.5ns max | |
| Output Enable/Disable Time | 启动/禁用时间 | Enable: 10ms max Disable: 0.2μs max | Enable: 200ns max Disable: 50ns 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(12KHz~20MHz) | 抖动 | 50fs typ; 300fs max | 0.6ps typ. |
| Storage Temperature Range | 储存温度范围 | -55°C ~ +125°C | |
| Aging Per Year | 老化率 | ±3ppm ~ ±5ppm/year | |

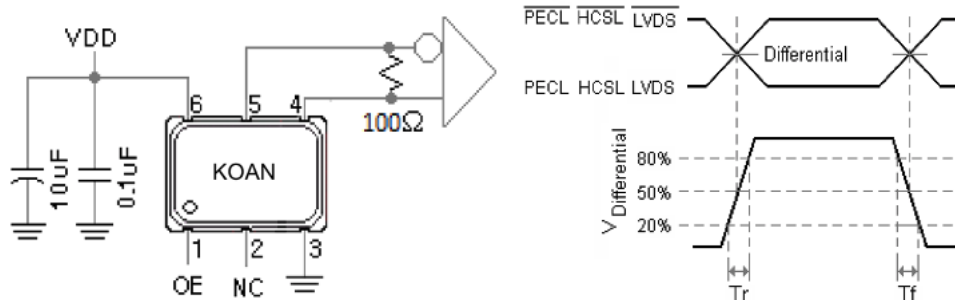
| Frequency Stability 温度频差 VS Operating Temperature Range 温度范围 | | | | | | |
|--------------------------------------------------------------|-----------|-----|-----|-----|-----|------|
| Temp. Code | Temp.\ppm | ±10 | ±20 | ±30 | ±50 | ±100 |
| B | -20~70°C | ○ | ○ | ○ | ○ | ○ |
| C | -40~85°C | | ○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



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



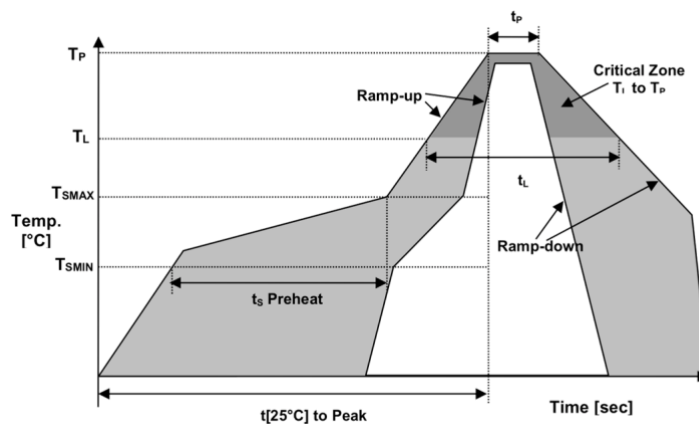
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Part Number Guide 产品编号

| | | | | | | | | | | |
|---------------------------------------------------------------------------------|---|---------|---|--------------------|--------------------------------------------------------------------------------|------|---------------------------------------------------------------------------|---------|---|------|
| KJ706D | - | 622.080 | - | 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 |
| 'KJ':产品系列 K=KOAN J=低抖动 '706':封装尺寸 SMD 7.0x5.0mm 6 pad 'D':输出波形 LVDS | | | | 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 $t[25^\circ\text{C}]$ to peak temperature | 25度到最高温度时间 | $t[25^\circ\text{C}]$ 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 |
|------------|--------------------|-------------------------|------------|----------------|
| 1.0 | 2 | Pin Description | 2022.6.20 | JZ |