

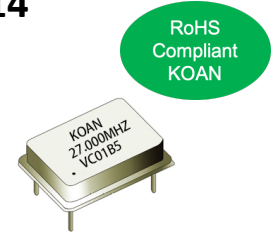
Voltage Controlled Crystal Oscillator (压控振荡器) - KV14

Feature 特征

- Frequency pulling range from $\pm 80 \sim \pm 200$ ppm 压控范围 $\pm 80 \sim \pm 200$ ppm

Applications 应用

- Frequency electrical calibration, high-frequency network application system, military anti-interference communication
频率电校准, 高频网络应用系统, 军事防干扰通讯



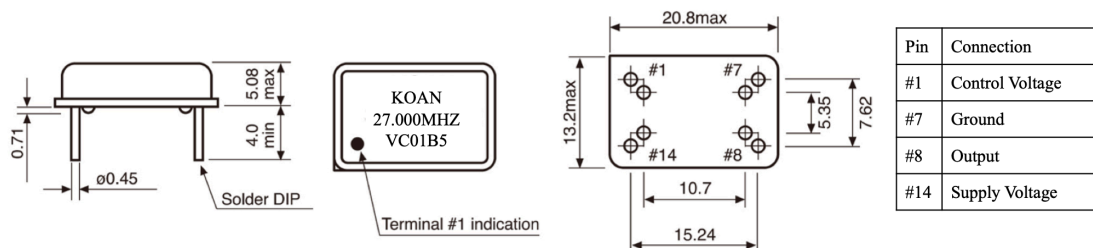
General Specifications 规格参考

| PARAMETER | 性能参数 | KV14 | |
|-----------------------------|--------|-----------------------------------|----------------------|
| Frequency Range | 频率范围 | 4.000~50.000MHz | |
| Supply Voltage | 供给电压 | +3.3V ($\pm 10\%$) | +5.0V ($\pm 10\%$) |
| Center Control Voltage | 中心控制电压 | 1.65Vdc (0.3V~3.0V) | 2.5Vdc (0.5V~4.5V) |
| Output Logic | 输出波形 | CMOS | |
| Output Load | 输出负载 | 15pF | |
| Frequency Tolerance | 调整频差 | ± 20 ppm | |
| Current Consumption | 工作电流 | 20mA max | |
| Output Logic High "1" | 输出电平 高 | 0.9Vdd min | |
| Output Logic Low "0" | 输出电平 低 | 0.1Vdd max | |
| Frequency Pulling Range | 压控范围 | $\pm 80 \sim \pm 200$ ppm | |
| Integrated Phase Jitter | 抖动 | 1ps max (12KHz~20MHz) | |
| Input Impedance | 输入电阻 | 1M Ω typical | |
| Rise & Fall Time | 上升下降时间 | 10ns max | |
| Start-up Time | 起振时间 | 5ms typical, 10ms max | |
| Linearity | 非线性误差 | $\pm 6\%$ typical, $\pm 10\%$ max | |
| Duty Cycle | 占空比 | 45~55% | |
| Modulation Bandwidth (-3dB) | 调制宽带 | 10KHz min. (Vcontrol=1.65V/2.5V) | |
| Aging Per Year | 年化率 | ± 3 ppm~ ± 5 ppm/year | |
| Storage Temperature Range | 储存温度范围 | -55°C ~ +125°C | |

| 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 | o | o | o | o | o |
| C | -40~85°C | | o | o | o | o |
| D | -20~105°C | | | o | o | o |
| E | -40~105°C | | | | o | o |
| F | -55~105°C | | | | | o |
| G | -20~125°C | | | | | o |

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

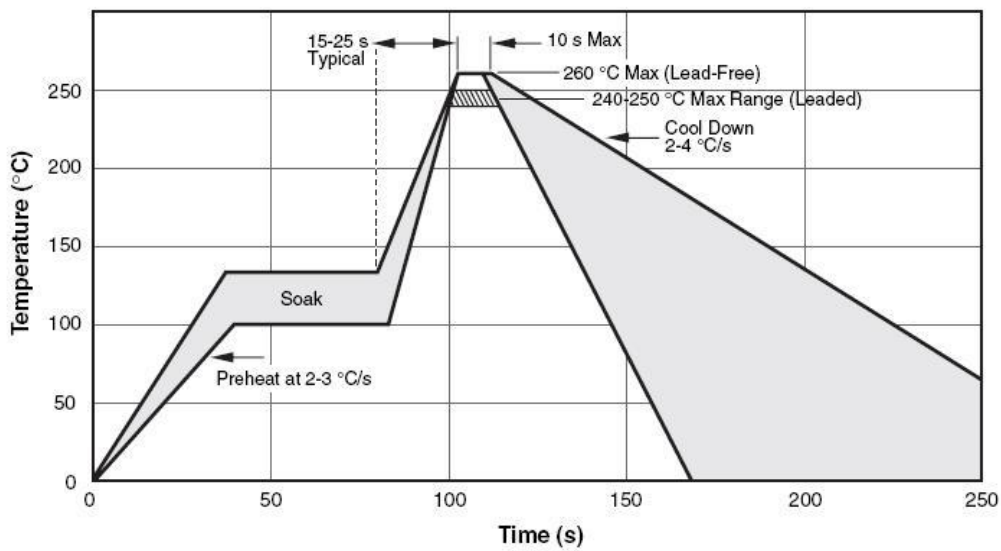
Outline Dimensions (Unit: mm) 外形尺寸



Part Number Guide 产品编号

| <u>KV14</u> | - | <u>27.000</u> | - | <u>100</u> | - | <u>33</u> | - | <u>C</u> | - | <u>30</u> | - | <u>NS</u> |
|--------------------------------|---|---------------|---|--|---|--------------------|---|--|---|---|---|---------------|
| ↓ | | ↓ | | ↓ | | ↓ | | ↓ | | ↓ | | ↓ |
| 型号 | - | 标称频率 | - | 压控范围 | - | 工作电压 | - | 工作温度 | - | 温度频差 | - | 特殊要求 |
| 'KV': 产品系列 '14': 封装尺寸 | | (In MHz) | | 80=±80ppm 100=±100ppm 150=±150ppm 200=±200ppm | | 33=3.3V 50=5.0V | | B: -20~+70°C C: -40~+85°C D: -20~+105°C E: -40~+105°C F: -55~+105°C G: -20~+125°C | | 10 = ±10ppm 20 = ±20ppm 30 = ±30ppm 50 = ±50ppm 100 = ±100ppm | | 'NS': 特殊要求 |

Wave Solder Profile 波峰焊



| | | |
|--|--------|--------------------------------------|
| Average Ramp-up Rate | 升温速度 | ~200°C/Second |
| Heating Rate during preheat | 预热速度 | 1~2°C/second typical; 4°C/second max |
| Final Preheat Temperature Ts | 最终预热温度 | ~130°C |
| Peak Temperature Tp | 最高温度 | 260°C |
| Time within +0°C/-5°C of actual temperature tp | 实际温度时间 | 10 seconds |
| Ramp-Down Rate | 降温速度 | 5°C/second max |