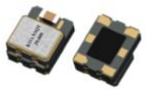
温补振荡器 Temperature Compensated Crystal Oscillator: K(V)T326 K(V)T326D

Feature 特征



- SMD packages available with CMOS and LVDS output logic 贴片封装提供 CMOS，LVDS 输出逻辑选择
- Wide frequency range up to 250MHz (CMOS) and 1.5GHz (LVDS) 频率范围宽
- VCTCXO option allows frequency tuning via control voltage 支持通过控制电压进行频率微调
- Ideal for networking, industrial control, and high speed digital systems 适用于网络通信，工业控制，高速数字系统

General Specifications 规格参考

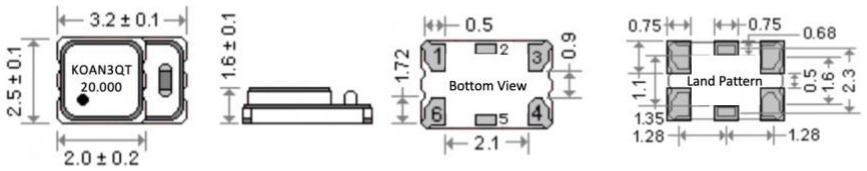
PARAMETER	性能参数	K(V)T326	K(V)T326D
Supply Voltage	工作电压	+2.5V; +3.3V	
Frequency Range	频率范围	10.0~250.0MHz	10.0~1500.0MHz
Standard Frequency	通用频率	50, 125, 200, 156.600, 600, 800, 1000MHz	
Output Waveform	输出波形	CMOS	LVDS
Output Load	输出负载	15pF	100Ω
Output Logic	输出电平	High: ≥0.9Vdd Low: ≤0.1Vdd	High: 1.4V typ. 1.6V max. Low: 1.1V typ. 0.9V max.
Initial Calibration Tolerance	调整频差	±1.0ppm max.	
Current Consumption	工作电流	45mA max.	45mA max.
Frequency Stability 频率稳定性 VS			
Operating Temperature Range	温度范围	见下表	
Frequency Stability	温度频差		
Load Change	负载变化	±0.2ppm (Load±5%)	
Voltage Change	电压变化	±0.2ppm (Vcc±5%)	
Aging	老化率	±1.0ppm/year max	
Reflow	回流焊	±1.0ppm max	
Duty Cycle	占空比	45~55% (f≤40MHz); 40~60% (f > 40MHz)	
Rise & Fall Time	上升下降时间	3ns max.	0.4ns max.
Phase Noise @125MHz	相位噪声 Max (dBc/Hz)	-50 / 10Hz	-85 / 100Hz	-100 / 1kHz	-110 / 10kHz	-120 / 100kHz
Start-up Time	起振时间	5ms max.	
Storage Temperature Range	储存温度范围	-55°C~+125°C	
Control Voltage Function on Pad 1			
Control Voltage Center	中心控制电压范围	+1.5V±1.0V	
Frequency Tuning Range	频率调节范围	±8ppm min.	
Linearity	非线性误差	正向±10% max.	
Input Impedance	输入电阻	770kΩ typ.	
Harmonic	谐波抑制	-5.0dBc max	

Frequency Stability 温度频差 VS Operating Temperature Range 温度范围							
Temp. Code	Temp.\ppm	±0.5	±1.0	±2.0	±2.5	±3.0	±5.0
A	-10~60°C	○	○	○	○	○	○
B	-20~70°C	○	○	○	○	○	○
C	-40~85°C		○	○	○	○	○

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

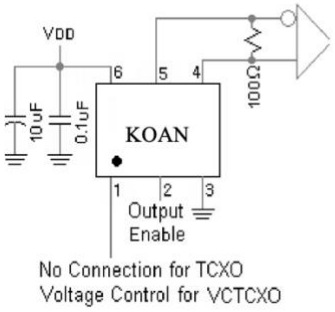
■ Outline Dimensions (Unit: mm) 外形尺寸

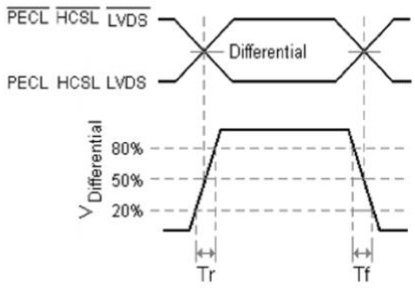
KT326
KT326D



Pin	Connection
#1	GND or NC for TCXO Voltage Control for VCTCXO
#2	Output Enable
#3	Ground
#4	CMOS: Output LVPECL/LVDS: Differential
#5	CMOS: No Connection LVPECL/LVDS: Complementary
#6	Supply Voltage

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

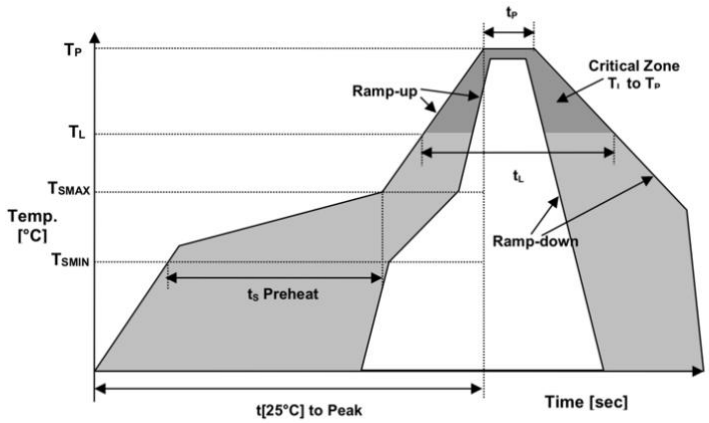




■ Part Number Guide 产品编号

K(V)T326D	-	20.000	-	33	-	C	-	02	-	NS
↓		↓		↓		↓		↓		↓
型号	-	标称频率	-	工作电压	-	工作温度	-	温度频差	-	特殊要求
'KT':温补系列 KT: TCXO KVT: VCTCXO **'326':**封装尺寸 3.2x2.5mm 6-pad **'D'**: 输出波形 LVDS		(In MHz)		25=2.5V 33=3.3V		A: -10~+60°C B: -20~+70°C C: -40~+85°C		A5 = ±0.5ppm 01 = ±1.0ppm 02 = ±2.0ppm 025 = ±2.5ppm 03 = ±3.0ppm 05 = ±5.0ppm		**'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