

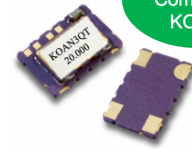
## Temperature Compensated Crystal Oscillator (温补振荡器) - K(V)T70CS

### Feature 特征

- Frequency Stability reaches 0.5ppm -20~70°C 频率稳定度可达到 0.5ppm

### Applications 应用

- Time benchmarking, mobile devices, wireless communications, precision meters, intelligent monitoring, etc. 时间基准, 移动设备, 无线通讯, 精密仪表, 智能监控等



RoHS  
Compliant  
KOAN

### General Specifications 规格参考

PARAMETER	性能参数	TCXO: KT70CS, VCTCXO: KVT70CS	
Frequency Range	频率范围	10.0~40.0MHz	
Supply Voltage	工作电压	+3.3V(±10%)	+5.0V(±10%)
Output Level	输出电平	0.8V p-p min.	
Output Logic	输出波形	Clipped Sine	
Output Load	输出负载	10KΩ//10pF	
Initial Calibration Tolerance	调整频差	<±1ppm at +25°C	
Current Consumption	工作电流	2.5mA max	

#### Frequency Stability 频率温度稳定度 VS

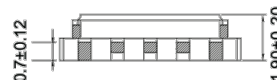
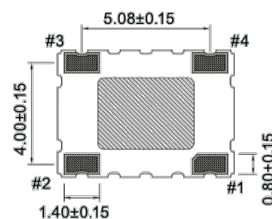
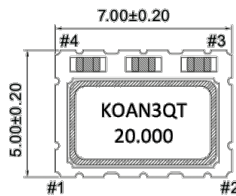
Aging	年老化率	±1.0ppm/year max
Voltage Change	电压变化	±0.2ppm max for ±5% input voltage change
Load Change	负载变化	±0.2ppm max for ±10% load condition change
Reflow (SMD type)	回流焊(SMD)	±1.0ppm max. 1 reflow and measured 24hs afterwards
Control Voltage Center	中心控制电压	1.5V±1.0V
Frequency Deviation Range	电压调整	±5ppm min.
Input Impedance	输入电阻	1.0MΩ min.
Modulation Bandwidth	调制宽带	3KHz min.
Phase noise	相位噪声	-80@10Hz (13MHz)
Linearity	非线性误差	±10% max.
Start-up Time	起振时间	2.0ms typ. 5.0ms max.
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	±0.5	±1.0	±2.0	±3.0	±5.0
B	-20~70°C	○	○	○	○	○
C	-40~85°C		○	○	○	○
D	-20~105°C			○	○	○
E	-40~105°C				○	○
F	-55~105°C					○
G	-20~125°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

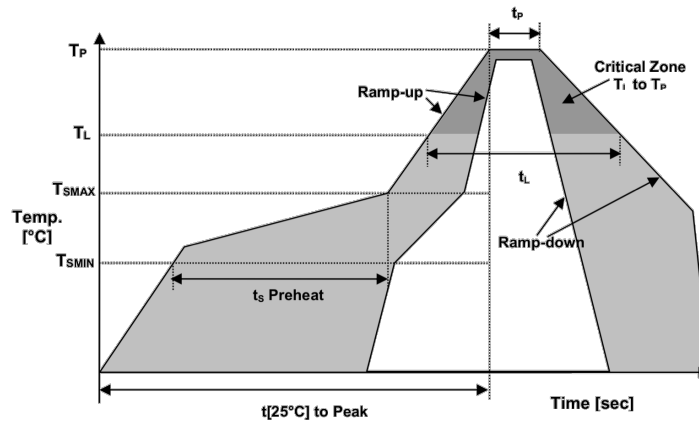


Pin	Connection
#1	No Connection for TCXO Voltage Control for VCTCXO
#2	Ground
#3	Output
#4	V <sub>DD</sub>

## Part Number Guide 产品编号

<u>KT70CS</u>	-	<u>20.000</u>	-	<u>33</u>	-	<u>C</u>	-	<u>03</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
'KT':产品系列 KT: TCXO KVT: VCTCXO '70':封装尺寸 SMD 7.0x5.0mm 'CS':输出波形 Clipped Sine		(In MHz)		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		A5 = ±0.5ppm 01 = ±1.0ppm 02 = ±2.0ppm 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