

压控振荡器 Voltage Controlled Crystal Oscillator: KV14S

Feature 特征

- VCXO allow for precise frequency tuning over typical range $\pm 80\text{ppm}$ min by adjusting the voltage on the control (Vc) pin 压控晶振可以通过调节控制引脚上的电压进行微调，频率微调范围为 $\pm 80\text{ppm}$ min.
- True sine wave output for low distortion and superior signal integrity 正弦波输出有极低失真和良好信号完整性
- Ideal for analog modulation system, RF circuits, and precision timing application 适用于模拟调制系统，射频电路，高精度定时应用



General Specifications 规格参考

PARAMETER	性能参数	KV14S	
Frequency Range	频率范围	10.0~250.0MHz	10.0~156.0MHz
Supply Voltage	供给电压	+3.3V($\pm 5\%$)	+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	True Sine	
Output Load	输出负载	50 Ω	
Harmonics	谐波抑制	< -30dBc (Frequency dependent)	
Frequency Tolerance	调整频差	$\pm 20\text{ppm}$	
Current Consumption	工作电流	20mA max.	40mA max
Output Level	输出级别	+3dBm min.	+5dBm min.
Frequency Pulling Range	压控范围	$\pm 80\text{ppm}$ min.	
Phase Noise (e.g.125.0MHz)	相位噪声	-75dBc/Hz@10Hz; -128dBc/Hz@100KHz	
Input Impedance	输入电阻	> 10K Ω	
Start-up Time	起振时间	2ms typ.; 6ms max.	
Linearity	非线性误差	$\pm 10\%$ max.	
Modulation Bandwidth (-3dB)	调制宽带	10KHz min.	
Aging Per Year	年化率	$\pm 3\text{ppm} \sim \pm 5\text{ppm}/\text{year}$	
Storage Temperature Range	储存温度范围	$-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$	

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 $^{\circ}\text{C}$	o	o	o	o	o
C	-40~85 $^{\circ}\text{C}$		o	o	o	o
D	-55~85 $^{\circ}\text{C}$			o	o	o
E	-55~105 $^{\circ}\text{C}$				o	o
F	-55~125 $^{\circ}\text{C}$				o	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

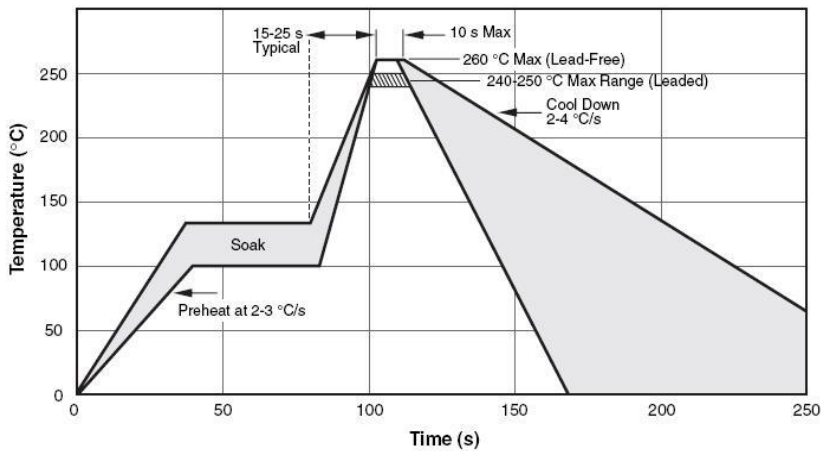
KV14S

Pin	Connection
#1	Control Voltage
#7	Ground
#8	Output
#14	Supply Voltage

Part Number Guide 产品编号

KV14S	-	27.000	-	80	-	33	-	C	-	30	-	NS
↓		↓		↓		↓		↓		↓		↓
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’: 压控系列				80=±80ppm				B: -20~+70°C		10 = ±10ppm		
‘14’: 封装尺寸				100=±100ppm		33=3.3V		C: -40~+85°C		20 = ±20ppm		
DIP-14		(In MHz)		150=±150ppm		50=5.0V		D: -55~+85°C		30 = ±30ppm		‘NS’:特殊要求
‘S’: 输出波形				200=±200ppm				E: -55~+105°C		50 = ±50ppm		
True Sine								F: -55~+125°C		100 = ±100ppm		

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 typ.; 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

Revision 版本

版本 Rev.	修改页 Revise Page	修改内容 Revise Contents	日期 Date	修改人 Reviser
0	N/A	Initial issue	2020.09.27	JZ