

压控振荡器 Voltage Controlled Crystal Oscillator: KV25 KV32 KV50 KV70

Feature 特征

- VCXO allow for precise frequency tuning over typical range $\pm 80 \sim 200$ ppm 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 $\pm 80 \sim \pm 200$ ppm
- Ideal for systems requiring frequency alignment and synchronization 适用于频率同步和微调系统



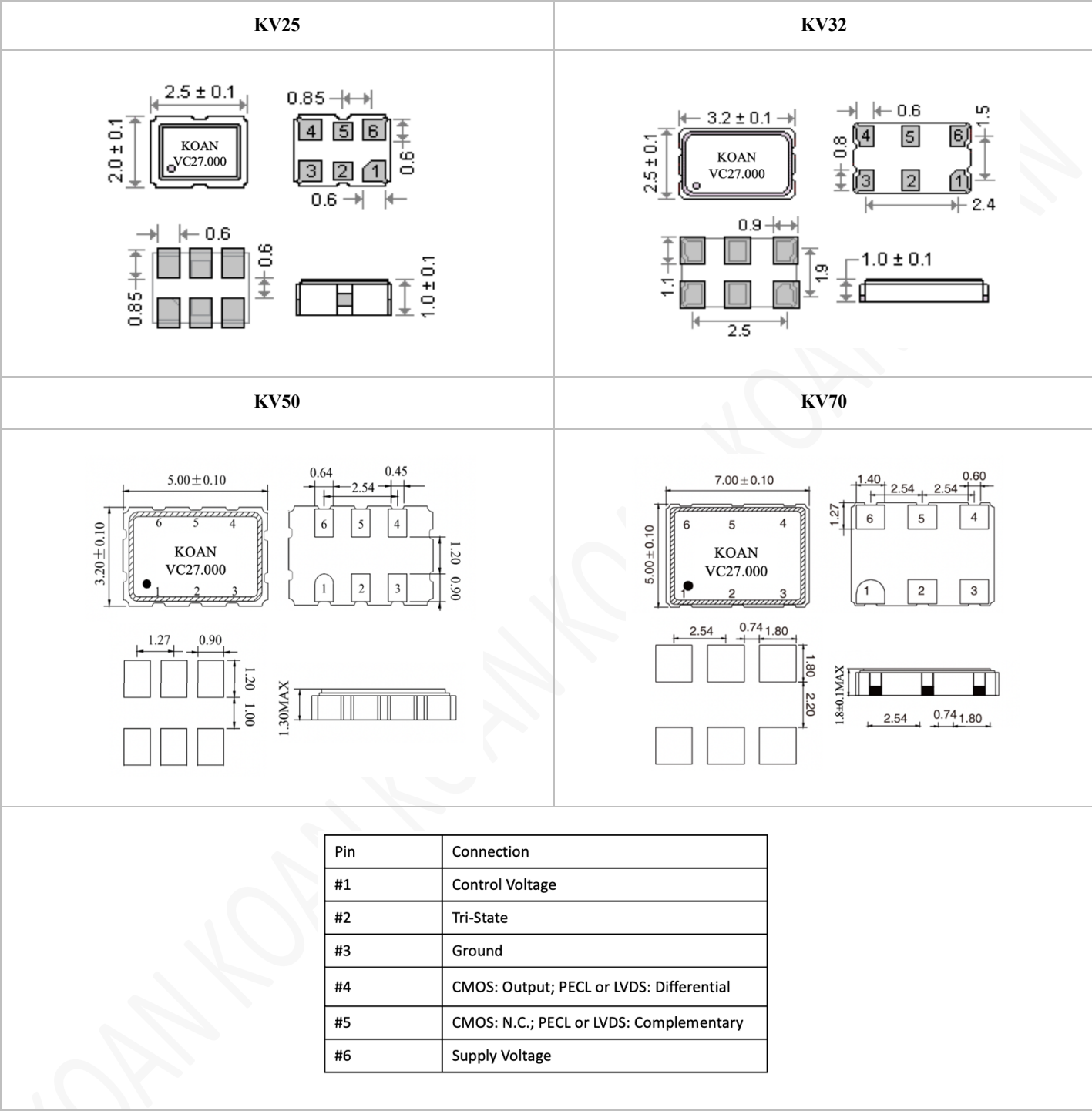
General Specifications 规格参考

PARAMETER	性能参数	KV25 KV32 KV50 KV70			
Frequency Range	频率范围	4.000 ~ 50.000MHz			
Supply Voltage	供电电压	+1.8V ($\pm 10\%$)	+2.5V ($\pm 10\%$)	+3.3V ($\pm 10\%$)	+5.0V ($\pm 10\%$)
Center Control Voltage	中心控制电压	0.9Vdc (0V~1.8V)	1.25Vdc (0.25V~2.25V)	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	5M Ω typical			
Rise & Fall Time	上升下降时间	4ns typ.; 6ns max			
Start-up Time	起振时间	5ms typical, 10ms max			
Output Enable/Disable Time	启动/禁用时间	Enable: 2ms max; Disable: 100ns max.			
Linearity	非线性误差	6% typical, 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	老化率	± 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	± 20	± 25	± 30	± 50	± 100
B	-20~70°C	○	○	○	○	○
C	-40~85°C		○	○	○	○
E	-40~105°C				○	○
F	-40~125°C					○

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

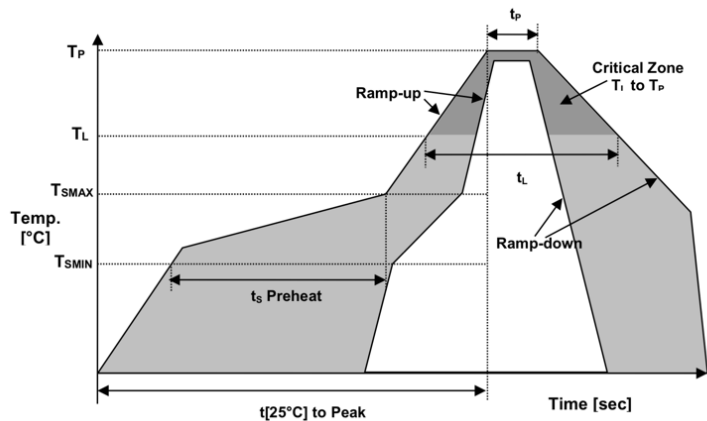
■ Outline Dimensions (Unit: mm) 外形尺寸



Part Number Guide 产品编号

<u>KV25</u>	-	<u>27.000</u>	-	<u>80</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’: 压控系列 ‘25’: 封装尺寸 2.5x2.0mm				80=±80ppm	18=1.8V	B: -20~+70°C	10 = ±10ppm	‘NS’:特殊要求				
				100=±100ppm	25=2.5V	C: -40~+85°C	20 = ±20ppm					
				150=±150ppm	33=3.3V	E: -40~+105°C	30 = ±30ppm					
				200=±200ppm	50=5.0V	F: -40~+125°C	50 = ±50ppm					
							100 = ±100ppm					

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