

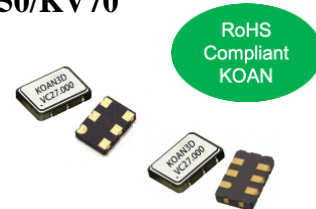
Voltage Controlled Clock Oscillator (压控振荡器) - KV25/KV32/KV50/KV70

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	KV25 KV32 KV50 KV70			
Frequency Range	频率范围	4.000~50.000MHz			
Supply Voltage	供给电压	+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" Output Logic Low "0"	输出电平 高 输出电平 低	0.9Vdd min 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 $^{\circ}$ C ~ +125 $^{\circ}$ 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 $^{\circ}$ C	o	o	o	o	o
C	-40~85 $^{\circ}$ C		o	o	o	o
D	-55~85 $^{\circ}$ C			o	o	o
E	-55~105 $^{\circ}$ C				o	o
F	-55~125 $^{\circ}$ C				o	o

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

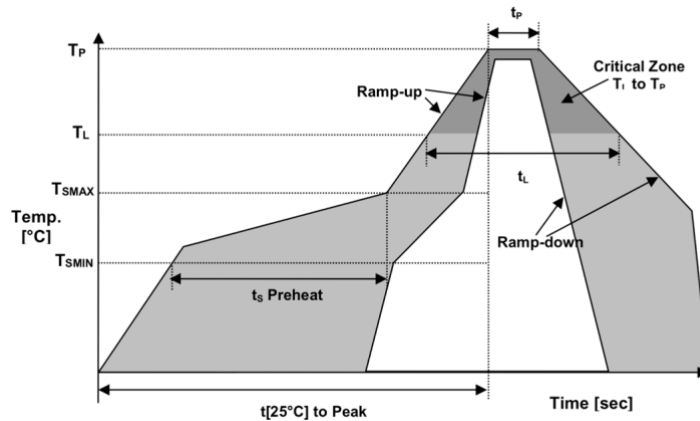
■ Outline Dimensions (Unit: mm) 外形尺寸

KV25	<table border="1" data-bbox="1295 279 1469 443"> <thead> <tr> <th>Pin</th> <th>Connection</th> </tr> </thead> <tbody> <tr><td>#1</td><td>Vcontrol</td></tr> <tr><td>#2</td><td>Tri-State</td></tr> <tr><td>#3</td><td>GND</td></tr> <tr><td>#4</td><td>Output</td></tr> <tr><td>#5</td><td>N.C.</td></tr> <tr><td>#6</td><td>VDD</td></tr> </tbody> </table>	Pin	Connection	#1	Vcontrol	#2	Tri-State	#3	GND	#4	Output	#5	N.C.	#6	VDD
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■ Part Number Guide 产品编号

<u>KV</u>	<u>70</u>	-	<u>27.000</u>	-	<u>80</u>	-	<u>33</u>	-	<u>C</u>	-	<u>30</u>	-	<u>NS</u>
系列	封装	输出波形	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=VCXO 压控振荡器	封装尺寸 70=7050 50=5032 32=3225 25=2520	“ ”=CMOS	(In MHz)	80=±80ppm 100=±100ppm 150=±150ppm 200=±200ppm	18=1.8V 25=2.5V 33=3.3V 50=5.0V	B: -20~+70°C C: -40~+85°C D: -55~+85°C E: -55~+105°C F: -55~+125°C	10 = ±10ppm 20 = ±20ppm 30 = ±30ppm 50 = ±50ppm 100 = ±100ppm	‘NS’:特 殊要求					

■ Reflow Profile 回流焊



Temperature Min Preheat	最低预热温度	$T_{S_{min}}$	150°C
Temperature Max preheat	最高预热温度	$T_{S_{max}}$	200°C
Time ($T_{S_{min}}$ to $T_{S_{max}}$)	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

■ Revision 版本

版本 Rev.	修改页 Revise Page	修改内容 Revise Contents	日期 Date	修改人 Reviser
1.0	NA	-	2021.02.25	JH