

## Voltage Controlled Crystal Oscillator (压控振荡器) - KV50T

### Feature 特征

- Frequency pulling range from  $\pm 100 \sim \pm 200$ ppm 压控范围  $\pm 100 \sim \pm 200$ ppm
- Wide frequency range 超高频
- 0.6ps phase jitter 低相噪抖动



RoHS  
Compliant  
KOAN

### 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

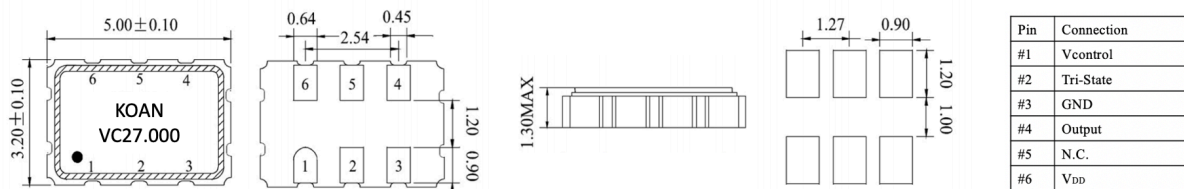
### General Specifications 规格参考

PARAMETER	性能参数	KV50T	
Frequency Range	频率范围	10.0~245.0MHz	
Supply Voltage	供给电压	+2.5V ( $\pm 10\%$ )	+3.3V ( $\pm 10\%$ )
Center Control Voltage	中心控制电压	1.25Vdc (0.25V~2.25V)	1.65Vdc (0.3V~3.0V)
Output Logic	输出波形	CMOS	
Output Load	输出负载	15pF	
Frequency Tolerance	调整频差	$\pm 20$ ppm	
Current Consumption	工作电流	40mA 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	$\pm 100 \sim \pm 200$ ppm	
Integrated Phase Jitter	抖动	0.6ps max (12KHz~20MHz)	
Input Impedance	输入电阻	1M $\Omega$ typical	
Rise & Fall Time	上升下降时间	10ns max	
Start-up Time	起振时间	5ms typical, 10ms max	
Linearity	非线性误差	$\pm 5\%$ typical, $\pm 10\%$ max	
Duty Cycle	占空比	45~55%	
Modulation Bandwidth (-3dB)	调制宽带	10KHz min.	
Aging Per Year	年老化率	$\pm 3$ ppm ~ $\pm 5$ 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	$\pm 10$	$\pm 20$	$\pm 30$	$\pm 50$	$\pm 100$
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

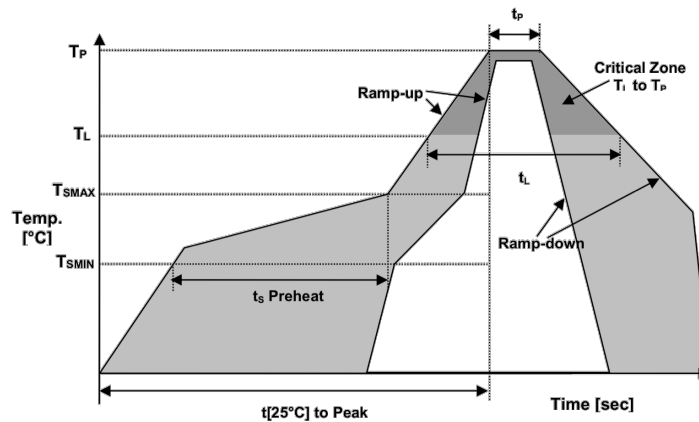


## Part Number Guide 产品编号

KV50T - 27.000 - 100 - 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':产品系列 '50':封装尺寸 SMD 5.0x3.2mm 'T':输出波形 CMOS	(In MHz)	100=±100ppm 150=±150ppm 200=±200ppm	25=2.5V 33=3.3V	B: -20~+70°C C: -40~+85°C D: -20~+105°C E: -40~+105°C F: -55~+105°C G: -20~+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	$T_{smin}$	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