

## Voltage Controlled Crystal Oscillator (压控振荡器) - KV508T

### Feature 特征

- Frequency pulling range from  $\pm 50 \sim \pm 200$ ppm 压控范围  $\pm 50 \sim \pm 200$ ppm
- High frequency ultra-low jitter VCXO, including CMOS, LVPECL, LVDS, CML or HCSL output logics 高频低相位抖动



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

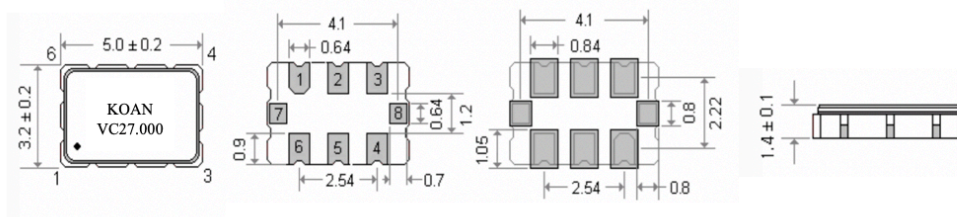
PARAMETER	性能参数	KV508T		
Frequency Range	频率范围	10.0~245.0MHz		
Supply Voltage	供给电压	+1.8V ( $\pm 10\%$ )	+2.5V ( $\pm 10\%$ )	+3.3V ( $\pm 10\%$ )
Center Control Voltage	中心控制电压	0.9Vdc (0V~1.8V)	1.25Vdc(0.25V~2.25V)	1.65Vdc(0.3V~3.0V)
Output Logic	输出波形	CMOS		
Output Load	输出负载	15pF		
Frequency Tolerance	调整频差	$\pm 20$ ppm		
Current Consumption	工作电流	70mA typical @50MHz; 80mA typical @250MHz		
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	$\pm 50 \sim \pm 200$ ppm		
Integrated Phase Jitter	抖动	159fs RMS Phase Jitter typ.@156.250MHz (12KHz~20MHz)		
Input Impedance	输入电阻	5M $\Omega$ typical		
Rise & Fall Time	上升下降时间	1.0 ns typ.; 5ns max		
Start-up Time	起振时间	5ms typ.; 10ms max		
Linearity	非线性误差	$\pm 1\%$ typ.; $\pm 10\%$ max		
Duty Cycle	占空比	45~55%		
Modulation Bandwidth (-3dB)	调制宽带	10KHz min.		
Aging Per Year	年化率	$\pm 3$ 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



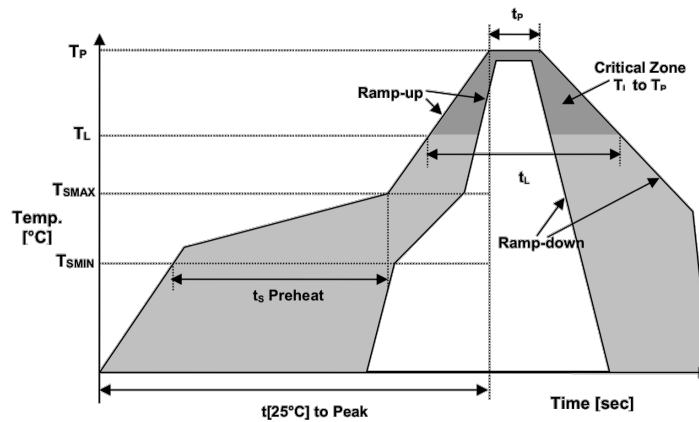
Pin	Connection
#1	Control Voltage
#2	Output Enable
#3	Ground
#4	Output
#5	Complementary Output
#6	Supply Voltage
#7	Do not Connect
#8	Do not Connect

## Part Number Guide 产品编号

KV508T - 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 '508':封装尺寸 SMD 5.0x3.2mm 8pad 'T' 输出波形 CMOS	(In MHz)	50 = ±50ppm 100=±100ppm 150=±150ppm 200=±200ppm	18=1.8V 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