

## Clock Oscillator (时钟振荡器) - KM50

### Feature 特征

- Spread Spectrum Low EMI Clock Oscillator 小型封装防电磁干扰时钟振荡器

### Applications 应用

- Mobile communications, radar navigation, digital products, HD monitoring, precision instruments 移动通信, 雷达导航, 数码产品, 高清监控, 精密仪器等



RoHS  
Compliant  
KOAN

### General Specifications 规格参考

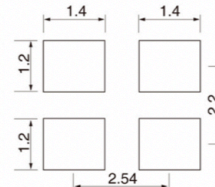
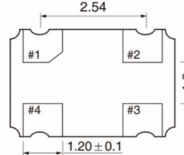
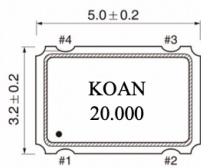
PARAMETER	性能参数	KM50	
Frequency Range	频率范围	3.0MHz~166.0MHz	3.0MHz~200.0MHz
Supply Voltage	供给电压	+2.5V(±10%)	+3.3V(±10%)
Spread Type Spread Percentage	扩展类型 扩展百分比	Down Spread 向下	Center Spread 中心
		-1.0% (D1.0)	0.5% (C0.5)
		-2.0% (D2.0)	1.0% (C1.0)
		-3.0% (D3.0)	1.5% (C1.5)
EMI Reduction Applied to the whole spectrum	电磁波干扰 减少量	9dB min (100MHz at C0.5) 12dB min (100MHz at C1.0) 15dB min (100MHz at C1.5)	
Modulation Carrier Freq. Dither rate	调制载波频率	30KHz~40KHz (Frequency Dependent)	
Output Logic	输出波形	CMOS	
Output Load	输出负载	15pF	
Frequency Tolerance	调整频差	±5ppm ~ ±30ppm	
Current Consumption	工作电流	25mA 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	
Cycle-to-cycle Jitter	抖动	±100pS typ. ±150pS max.	
Rise & Fall Time	上升下降时间	5ns max	
Start-up Time	起振时间	5ms max	
Duty Cycle	占空比	45~55%	
Aging Per Year	老化率	±3ppm~±5ppm/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	±10	±20	±30	±50	±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

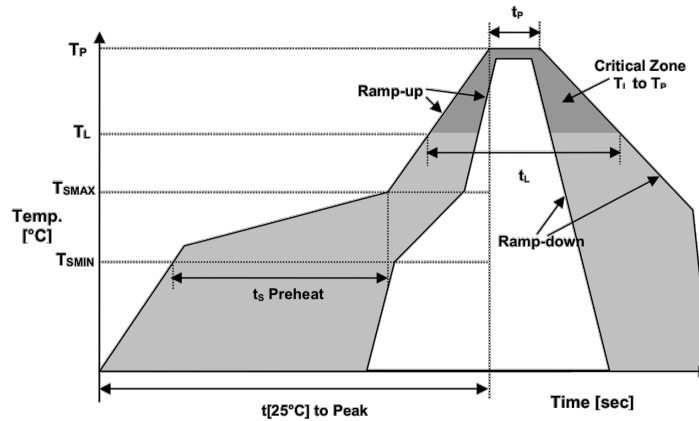


Pin	Connection
#1	Tri-State
#2	Ground
#3	Output
#4	Supply Voltage

## Part Number Guide 产品编号

<b>KM50</b>	-	<b>20.000</b>	-	<b>33</b>	-	<b>C</b>	-	<b>30</b>	-	<b>C1.5</b>	-	<b>NS</b>
↓		↓		↓		↓		↓		↓		↓
型号	-	标称频率	-	工作电压	-	工作温度	-	温度频差	-	扩展类型百分比	-	特殊要求
'KM': 产品系列 M=扩频晶振 '50':封装尺寸 SMD 5.0x3.2mm		(In MHz)		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