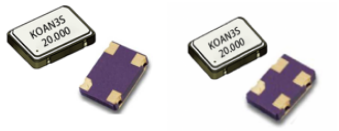
时钟振荡器 Clock Oscillator: KS20 KS25 KS32 KS50 KS70

Feature 特征



- Miniature package for space-saving designs 小型封装，节省空间
- Compatible with CMOS and TTL logic circuits for versatile integration 兼容 CMOS/TTL 逻辑电路
- Standards tri-state output 标准三态输出
- Available in multiple voltage options to suit different system requirements 多电压选择，满足不同系统需求

General Specifications 规格参考

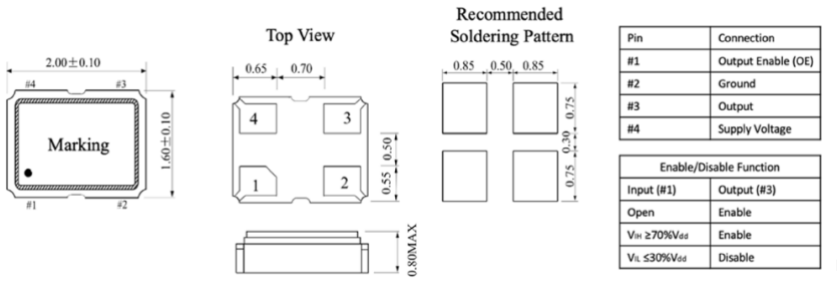
PARAMETER	性能参数		KS20	KS25	KS32	KS50	KS70
Dimensions	尺寸 (mm)		2.0x1.6	2.5x2.0	3.2x2.5mm	5.0x3.2mm	7.0x5.0mm
Frequency Range 频率范围(Hz)							
Supply Voltage	供给电压 (±10%)	1.2V	-	0.25~50M	0.25~50M	0.25~50M	0.25~50M
		1.8V	1~60M	0.312~125M	0.312~160M	0.312~160M	0.312~160M
		2.5V					
		3.3V				0.312~200M	0.312~200M
		5.0V	-	1.75~50M	1.75~50M	0.375~100M	0.375~100M
Output Logic	输出波形		CMOS				
Frequency Tolerance	调整频差		±5ppm ~ ±30ppm				
Frequency Stability	温度频差		见下表				
Operating Temperature Range	温度范围		见下表				
Current Consumption	工作电流		25mA max.	30mA max.	35mA max.	60mA max.	60mA max.
Output Load	输出负载		15pF				
Start-up Time	起振时间		5ms max.				
Duty Cycle	占空比		45~55% (f≤40MHz); 40~60% (f > 40MHz)				
Rise & Fall Time	上升下降时间		5ns max.	5ns max.	10ns max.	10ns max.	10ns max.
Output Logic High "1" Low "0"	输出电平 高 输出电平 低		0.9V min.; 0.1V max. @1.2V 0.9Vdd min.; 0.1Vdd max. @1.8/2.5/3.3/5.0V				
Storage Temperature Range	储存温度范围		-55°C ~ +125°C				
Aging Per Year	年老化率		±3ppm ~ ±5ppm/year				

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	-55~125°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

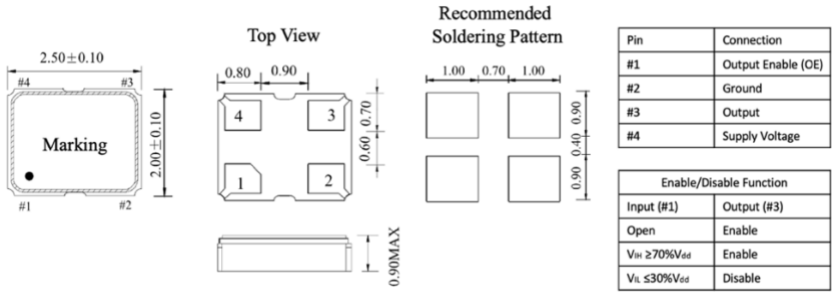
KS20



Pin	Connection
#1	Output Enable (OE)
#2	Ground
#3	Output
#4	Supply Voltage

Enable/Disable Function	
Input (#1)	Output (#3)
Open	Enable
V_{IH} ≥70%V_{dd}	Enable
V_{IL} ≤30%V_{dd}	Disable

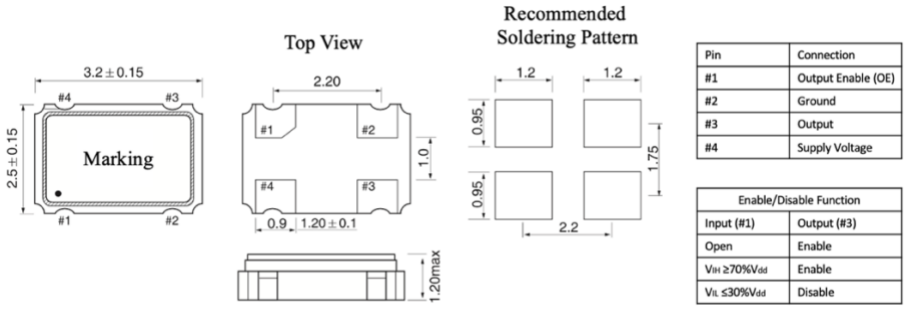
KS25



Pin	Connection
#1	Output Enable (OE)
#2	Ground
#3	Output
#4	Supply Voltage

Enable/Disable Function	
Input (#1)	Output (#3)
Open	Enable
V_{IH} ≥70%V_{dd}	Enable
V_{IL} ≤30%V_{dd}	Disable

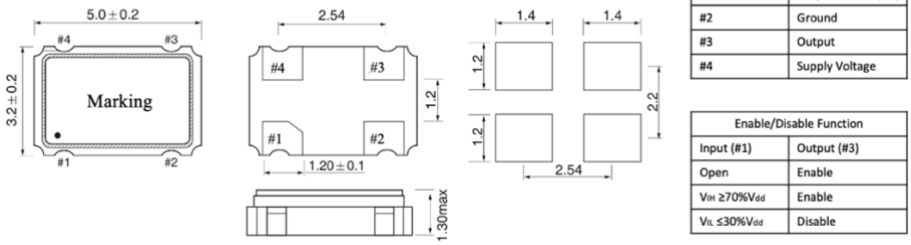
KS32



Pin	Connection
#1	Output Enable (OE)
#2	Ground
#3	Output
#4	Supply Voltage

Enable/Disable Function	
Input (#1)	Output (#3)
Open	Enable
V_{IH} ≥70%V_{dd}	Enable
V_{IL} ≤30%V_{dd}	Disable

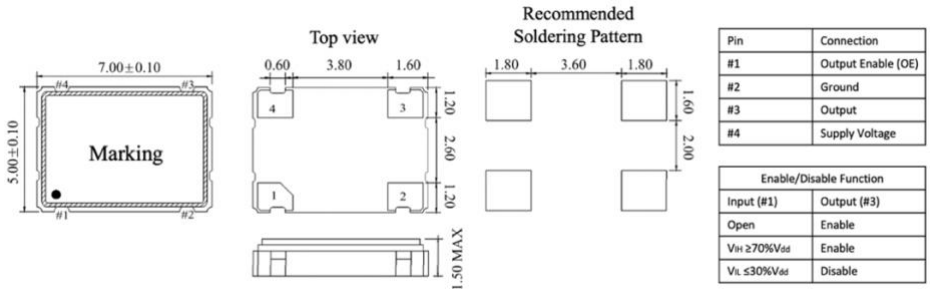
KS50



Pin	Connection
#1	Output Enable (OE)
#2	Ground
#3	Output
#4	Supply Voltage

Enable/Disable Function	
Input (#1)	Output (#3)
Open	Enable
V_{IH} ≥70%V_{dd}	Enable
V_{IL} ≤30%V_{dd}	Disable

KS70



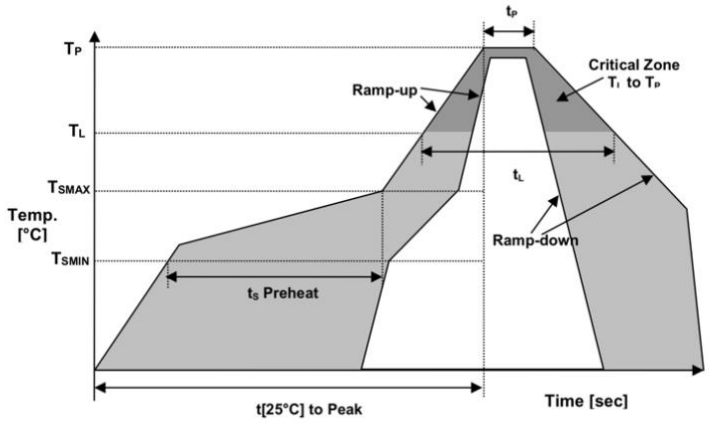
Pin	Connection
#1	Output Enable (OE)
#2	Ground
#3	Output
#4	Supply Voltage

Enable/Disable Function	
Input (#1)	Output (#3)
Open	Enable
V_{IH} ≥70%V_{dd}	Enable
V_{IL} ≤30%V_{dd}	Disable

■ Part Number Guide 产品编号

KS25	-	20.000	-	33	-	C	-	30	-	NS
↓		↓		↓		↓		↓		↓
型号	-	标称频率	-	工作电压	-	工作温度	-	温度频差	-	特殊要求
'KS': 非差分系列 **'25':**封装尺寸 SMD2.5x2.0mm		(In MHz)		12=1.2V 18=1.8V 25=2.5V 33=3.3V 50=5.0V		B: -20~+70°C C: -40~+85°C E: -40~+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_{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