

晶体振荡器 Crystals Oscillators Unit
 产品型号 HEOC33- SMD OSC 5×3.2

产品特征 Features

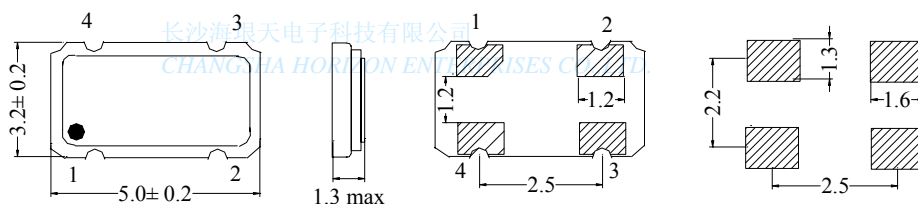
- 表面贴装时钟晶体振荡器
 Surface Mount Clock Crystals Oscillators
- 兼容 TTL/HCOMOS Compatible



产品规格 Specification

电性能参数 Parameter	规格 Specification	
频率范围 Frequency Range	1.000~ 100.000MHz	
频率稳定度 Overall Frequency Stability [包括工作稳度、电源电压和负载]	±25ppm~±100ppm (Inclusive of Operating Temp., Supply Voltage & Load)	
工作温度 Operating Temperature	-10℃~60℃ \ -40℃~85℃(See Options)	
储存温度 Storage Temperature	-40℃~85℃ \ -55℃~125℃	
输入电压 Supply Voltage (V _{DC})	HEOC33A +5.0±0.5 V _{DC}	HEOC33B +3.3±0.3 V _{DC}
输入电流 Supply Current (I _{CC})		
1.000 ~35.999 MHz	25mA max	20mA max
36.000~69.999 MHz	60mA max	40mA max
70.000~100.000 MHz	80mA max	60mA max
对称性 (占空比) Symmetry (Duty Cycle)	40/60% Std./ 45/55% Avail. (See Options)	
逻辑输出电平 Output "0" Level (V _{OL})	HEOC33A 0.4V _{DC} max.(TTL) 0.4V _{DC} max.(HCMOS)	HEOC33B 0.4V _{DC} max.(TTL) 0.4V _{DC} max.(HCMOS)
逻辑输出电平 Output "1" Level (V _{OH})	2.4V _{DC} min.(TTL). 2.7V _{DC} min (HCMOS)	2.4V _{DC} min.(TTL). 2.7V _{DC} min (HCMOS)
上升和下降时间 Rise and Fall Time	10ns max <5ns typical	
启动时间 Start Time	10ms max <5ms typical	
老化率 Aging @ 25℃±3℃	±3 ppm first year	
输出负载 Output Load	10TTL/ 50pf HCMOS (up to 24.0MHz) 10TTL/ 15pf HCMOS	
三态功能 Tristate Function		
(Pin 1 Has Internal Pull-up Resistor Allowing It to be Left Floating High.)	V _{IH} : 2.2v or Open Enables Output V _{IL} : 0.8v or Disables Output	
启用 \ 禁用时间	OutputEnable \ Disable Time:100ns max	
所有规格如有变更, 不另行通知。All Specifications Subject to Change Without Notice.		

外形尺寸 (单位:毫米) Figure and Dimensions(Unit: mm)



建议电路板印刷底座 Recommended Solder Layout



Pin	功能 Function	Pin	功能 Function
1	数控或三态 Nc or Tri-State	4	输入电压 Supply Voltage V_{DD}
2	外壳接地 Case Ground	5	晶体连接 Crystal
3	输出 Output	6	晶体连接 Crystal

订购须知 Order Information

HEOC33□-Frequency- Temp.Range- Overall Freq.Stability-Duty Cycle-Option

HEOC33□	产品系列 Product Family SMD OSC 5×3.2
	<ul style="list-style-type: none"> ■ HEOC31A for +5.0±0.5 V_{DC} ■ HEOC31B for +3.3±0.3 V_{DC}
Frequency	频率 Frequency(MHz)
Temp.Range	工作温度 Operating Temperature
	<ul style="list-style-type: none"> ■ T_1 for -10℃~60℃ ■ T_2 for -40℃~85℃ ■ X for custom value
Overall	频率稳定度 Overall Frequency Stability
	<ul style="list-style-type: none"> ■ H_1 for±25 ppm max ■ H_2 for±50 ppm max ■ X for custom value
Duty Cycle	对称性（占空比）Tight Symmetry (Duty Cycle)
	A for Tight Symmetry (45/55%)Duty Cycle
	B for Blank-None Required (40/60% Std)
Option	选型 Option
	<ul style="list-style-type: none"> ■ T For Tri-State ■ N For No Connection

订购举例：Example : HEOC33B-20.000MHz-- T_1 - H_1 -A-T

HEOC33B	产品系列 SMD OSC 5×3.2 - +3.3±0.3 V_{DC}
20.000MHz	频率 Frequency \ f_0 =20.000MHz
T_1	工作温度 Operating Temperature \ T_1 =-10℃~60℃
H_1	频率稳定度 Overall Frequency Stability \ H_1 =±25 ppm
A	对称性（占空比）Symmetry (Duty Cycle)
	A for Tight Symmetry (45/55%)Duty Cycle
T	选型 Option \ T For Tri-State