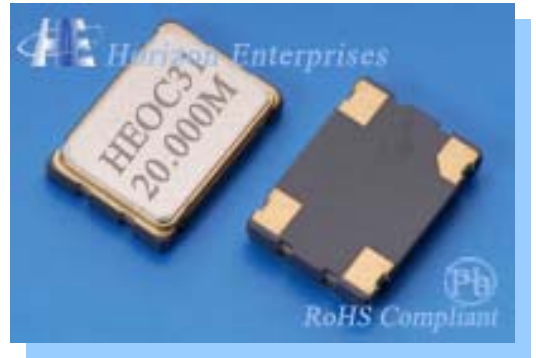


晶体振荡器 Crystals Oscillators Unit  
 产品型号 HEOC31- SMD OSC 7×5

产品特征 Features

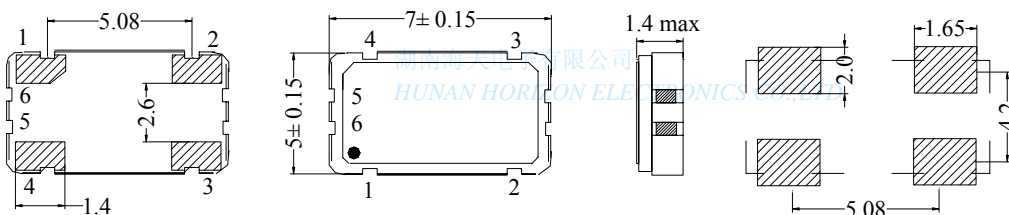
- 表面贴装时钟晶体振荡器  
 Surface Mount Clock Crystals Oscillators
- 兼容 TTL/HCOMOS Compatible



产品规格 Specification

电性能参数 Parameter	规格 Specification	
频率范围 Frequency Range	1.000~ 125.000MHz	
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 <sub>DC</sub> )	<b>HEOC31A</b> +5.0±0.5 V <sub>DC</sub>	<b>HEOC31B</b> +3.3±0.3 V <sub>DC</sub>
输入电流 Supply Current (I <sub>CC</sub> )		
1.000 ~35.999 MHz	25mA max	20mA max
36.000~69.999 MHz	60mA max	40mA max
70.000~150.000 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 <sub>OL</sub> )	<b>HEOC31A</b> 0.4V <sub>DC</sub> max.(TTL) 0.4V <sub>DC</sub> max.(HCMOS)	<b>HEOC31B</b> 0.4V <sub>DC</sub> max.(TTL) 0.4V <sub>DC</sub> max.(HCMOS)
逻辑输出电平 Output "1" Level (V <sub>OH</sub> )	2.4V <sub>DC</sub> min.(TTL). 4.5V <sub>DC</sub> min (HCMOS)	2.4V <sub>DC</sub> min.(TTL). 2.7V <sub>DC</sub> 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 Ageing @ 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 It to be Left Floating High.)	V <sub>IH</sub> : 2.2v or Open Enables Output V <sub>IL</sub> : 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 Pad 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**

**HEOC31□-Frequency- Temp.Range- Overall Freq.Stability-Duty Cycle-Option**

<b>HEOC31□</b>	产品系列 Product Family SMD OSC 7×5
	<ul style="list-style-type: none"> <li>■ HEOC31A for +5.0±0.5 <math>V_{DC}</math></li> <li>■ HEOC31B for +3.3±0.3 <math>V_{DC}</math></li> </ul>
<b>Frequency</b>	频率 Frequency( MHz)
<b>Temp.Range</b>	工作温度 Operating Temperature
	<ul style="list-style-type: none"> <li>■ <math>T_1</math> for -10℃~60℃</li> <li>■ <math>T_2</math> for -40℃~85℃</li> <li>■ X for custom value</li> </ul>
<b>Overall Freq.Stability</b>	频率稳定度 Overall Frequency Stability
	<ul style="list-style-type: none"> <li>■ <math>H_1</math> for±25 ppm max</li> <li>■ <math>H_2</math> for±50 ppm max</li> <li>■ X for custom value</li> </ul>
<b>Duty Cycle</b>	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 )
<b>Option</b>	选型 Option
	<ul style="list-style-type: none"> <li>■ T For Tri-State</li> <li>■ N For No Connection</li> </ul>

**订购举例：Example : HEOC31B-20.000MHz-- $T_1$ - $H_1$ -A-T**

<b>HEOC31B</b>	产品系列 SMD OSC 7×5 -+3.3±0.3 $V_{DC}$
<b>20.000MHz</b>	频率 Frequency \ $f_0$ =20.000MHz
<b><math>T_1</math></b>	工作温度 Operating Temperature \ $T_1$ =-10℃~60℃
<b><math>H_1</math></b>	频率稳定度 Overall Frequency Stability \ $H_1$ =±25 ppm
<b>A</b>	对称性（占空比）Symmetry (Duty Cycle)
	A for Tight Symmetry (45/55%)Duty Cycle
<b>T</b>	选型 Option \ T For Tri-State

[Http:// www.horizonxtal.com](http://www.horizonxtal.com)

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