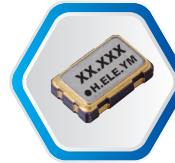


# HSO531S SERIES

## CRYSTAL OSCILLATOR, SPXO

RoHS Compliant     Pb Free



### STANDARD SPECIFICATION

Items		Parameter			
Frequency Range		0.7 ~ 160MHz			
Power Voltage (±10%)		+1.8 V	+2.5 V	+2.8 V	+3.3 V
Output Character	"0" Level	10%VDD Max.			
	"1" Level	90%VDD Min.			
	Rise Time (Tr)	10% ~ 90%VDD 10ns Max.			
	Fall Time (Tf)	90% ~ 10%VDD 10ns Max.			
	Symmetry	60/40 to 40/60 at 50%VDD			
Output Load		15pF, 30pF Max.			
Current Consumption	I <sub>cc</sub>	20 mA Max.			
Stand-by Current (#1 pin = "L" Level)	I <sub>std</sub>	10 uA Max.			
Start-up Time		5 ms Max.			
Phase Jitter	10 ≤ f <sub>0</sub> ≤ 40	1ps Max. (F offset : 12KHz ~ 5MHz)			
	40 ≤ f <sub>0</sub> ≤ 160	1ps Max. (F offset : 12KHz ~ 20MHz)			
Storage Temp.		-55°C ~ +125°C			

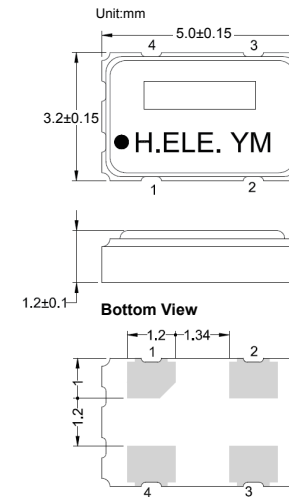
### FREQUENCY STABILITY OVER OPERATING TEMPERATURE RANGE

Operating Temperature	Stability
-10 ~ +70°C	±20ppm
-40 ~ +85°C	±25ppm
-40 ~ +125°C	±100 ppm

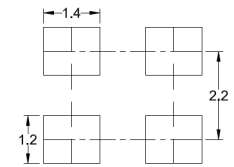
\*For other specification, please contact us.

Packing Unit : 1,000pcs/Reel.

### DIMENSION



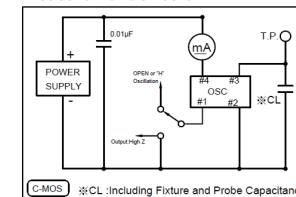
Recommended Land Pattern  
Tolerance: ±0.15



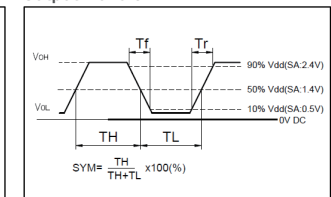
Pin Connections	
#1	OE(Output Enable)
#2	GND
#3	Output
#4	Vdd

### TEST CIRCUIT AND OUTPUT WAVEFORM

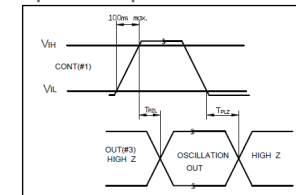
#### Measurement Circuit



#### Output Waveform



#### Input and Output Condition



Actual Size