



# HSO221S SERIES

CRYSTAL OSCILLATOR, SPXO

☑ RoHS Compliant ☑ Pb Free



## STANDARD SPECIFICATION

Items		Parameter			
Frequency Range		1~125MHz			
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 Max.			
Current Consumption	I <sub>cc</sub>	15 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> ≤125	1ps Max. (F offset : 12KHz ~ 20MHz)			
Storage Temp.		-55°C ~ +125°C			

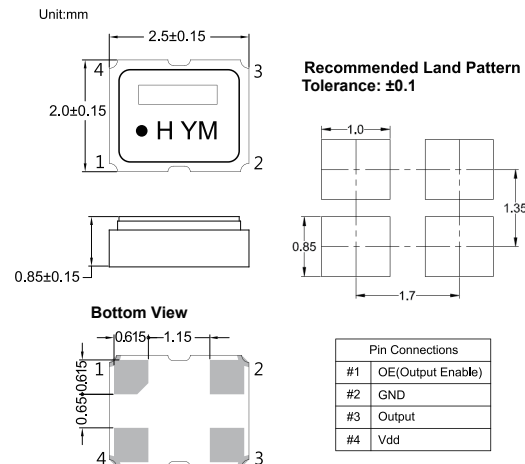
## FREQUENCY STABILITY OVER OPERATING TEMPERATURE RANGE

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

\* For other specification, please contact us.

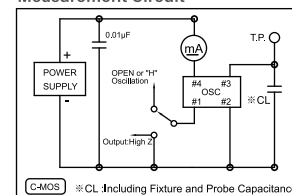
Packing Unit : 3,000pcs/Reel.

## DIMENSION

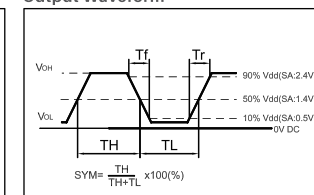


## TEST CIRCUIT AND OUTPUT WAVEFORM

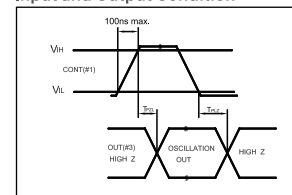
### Measurement Circuit



### Output Waveform



### Input and Output Condition



Actual Size