

The ECS-400X Series clock oscillator offers low current drain and is compatible with HCMOS/TTL logic. The metal package with pin #7 case ground acts as shielding to minimize radiation.

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

ECS-400X



- HCMOS/TTL logic compatible
- Wide frequency range
- Low power consumption
- Resistance weld package
- PbFree/RoHS Compliant

Parameters	Frequency Range	Conditions	MIN	TYP	MAX	Units
Frequency (F _O)	0.250 ~ 150.000		0.250		150.000	MHz
Operating Temperature Range (T _{OPR})	0.250 ~ 150.000		0		+70	°C
Storage Temperature Range (T _{STG})	0.250 ~ 150.000		-55		+125	°C
Frequency Stability	0.250 ~ 150.000	All Conditions*	-100		+100	PPM
Input Current (I _{DD})	0.250 ~ 20.000				12	mA
	20.000 ~ 25.000				15	mA
	25.000 ~ 150.000				30	mA
Output Symmetry		50% V _{DD} level	40	50 ± 3	60	%
Rise Time (T _R)	0.250 ~ 25.000	10% ~ 90% V _{DD} level			10	nS
	25.000 ~ 150.000	10% ~ 90% V _{DD} level			5	nS
Fall Time (T _F)	0.250 ~ 25.000	90% ~ 10% V _{DD} level			10	nS
	25.000 ~ 150.000	90% ~ 10% V _{DD} level			5	nS
Output Voltage (V _{OL}) (V _{OH})	0.250 ~ 150.000	I _{OL} = 4 mA			0.5	V
	0.250 ~ 150.000	I _{OH} = -4 mA	4.5			V
Output Current (I _{OL}) (I _{OH})	0.250 ~ 150.000	V _{OL} = 0.5V			4	mA
	0.250 ~ 150.000	V _{OH} = 4.5V			-4	mA
Output Load	0.250 ~ 150.000	TTL			10	TTL
	0.250 ~ 150.000	HCMOS			15	pF
Start-Up Time (T _S)	0.250 ~ 25.000				5	mS
	25.000 ~ 150.000				10	mS
Supply Voltage			+4.75	+5.0	+5.25	V

* Inclusive of 25°C tolerance, operating temperature range, input voltage change, load change, aging, shock and vibration.

Part Numbering Guide: Example ECS-400AX-100

ECS - Series - Stability - Frequency Abbreviations

ECS

400
+5V HCMOS/TTL
Full Size

AX = ±100 PPM
BX = ±50 PPM
CX = ±25 PPM

100 = 10.000 MHz

Package Dimensions (mm)

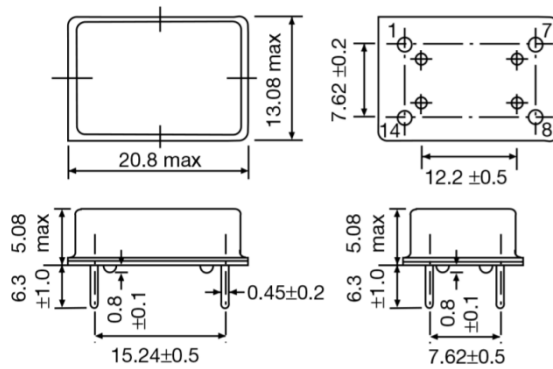


Figure 1) Top, Side and Bottom views

Pin Connections	
#1	NC
#7	Case GND
#8	Output
#14	+5 V DC

Figure 3) Pin Connections

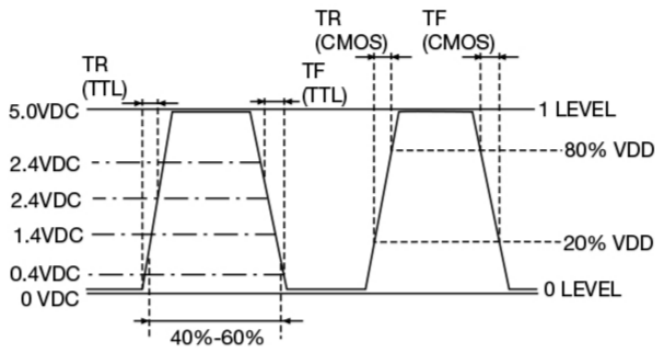


Figure 2) Output Wave Form