

The ECS-100 clock oscillator is fully compatible with TTL circuitry. The metal package with pin #7 case ground acts as shielding to minimize radiation, conforming to FCC EMI specifications.

## FEATURES

- 10 TTL output load
- Low cost
- Wide frequency range
- Industry standard footprint
- Resistance weld package
- 3.3V operation (optional)

## PART NUMBERING GUIDE

PART NUMBER*	FREQUENCY STABILITY
ECS-100A	±100 PPM
ECS-100B	±50 PPM
ECS-100C	±25 PPM

\* Complete part number to include frequency, i.e. ECS-100A-100 (100 = 10.000MHz)

## OPERATING CONDITIONS/ELECTRICAL CHARACTERISTICS

PARAMETERS	FREQUENCY RANGE	CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
FREQUENCY RANGE (fo)	1.000 - 150.000		1.000		150.000	MHz
OPERATING TEMP. RANGE (TOPR)	1.000 - 150.000		0		+70	°C
STORAGE TEMP. RANGE (TSTG)	1.000 - 150.000		-55		+125	°C
FREQUENCY STABILITY	1.000 - 150.000	All conditions*	-100		+100	PPM
INPUT CURRENT (I <sub>DD</sub> )	1.000 - 7.999	max. load			15	mA
	8.000 - 23.999	max. load			30	mA
	24.000 - 69.999	max. load			70	mA
	70.000 - 150.000	max. load			80	mA
OUTPUT SYMMETRY	1.000 - 7.999	1.4V level	45	50 ±3	55	%
	8.000 - 150.000	1.4V level	40	50 ±3	60	%
RISE TIME (T <sub>R</sub> )	1.000 - 24.999	0.4V ~ 2.4V			10	nS
	25.000 - 69.999	0.5V ~ 2.4V			5	nS
	70.000 - 150.000	0.5V ~ 2.4V			4	nS
FALL TIME (T <sub>F</sub> )	1.000 - 24.999	2.4V ~ 0.4V			10	nS
	25.000 - 69.999	2.4V ~ 0.5V			5	nS
	70.000 - 150.000	2.4V ~ 0.5V			4	nS
OUTPUT VOLTAGE	(V <sub>OL</sub> )	1.000 - 24.999			0.4	V
	(V <sub>OL</sub> )	25.000 - 150.000			0.5	V
	(V <sub>OH</sub> )	70.000 - 150.000	I <sub>OH</sub> = 1 mA	2.4		V
OUTPUT CURRENT	(I <sub>OL</sub> )	1.000 - 150.000	V <sub>OL</sub> = 0.5 V		20	mA
	(I <sub>OH</sub> )	1.000 - 150.000	V <sub>OH</sub> = 2.4 V		1.0	mA
OUTPUT LOAD	1.000 - 150.000				10	TTL
START-UP TIME (T <sub>s</sub> )	1.000 - 3.499				20	mS
	3.500 - 3.999				35	mS
	4.000 - 5.999				30	mS
	6.000 - 19.999				20	mS
	20.000 - 150.000				15	mS
SUPPLY VOLTAGE	1.000 - 150.000	+5.0 ±0.25			-	V <sub>DC</sub>

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

## PACKAGE DIMENSIONS (mm)

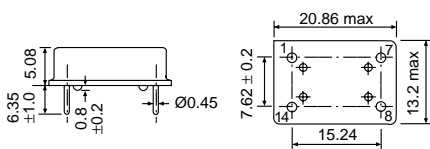


Figure 1) ECS-100 Series Side and Bottom views

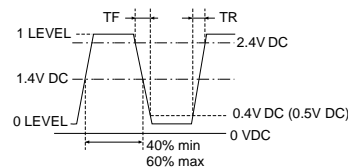


Figure 2) Output Wave Form

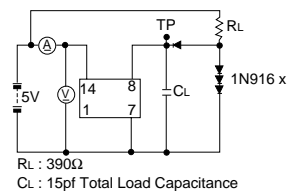


Figure 3) Measurement Circuit (includes probe capacitance)

PIN CONNECTIONS	
#1	NC
#7	CASE GND
#8	OUTPUT
#14	+5 V DC

Figure 4) Pin Connections