

ECS-2100A-100 Datasheet



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DiGi Electronics Part Number	ECS-2100A-100-DG
Manufacturer	ECS Inc.
Manufacturer Product Number	ECS-2100A-100
Description	XTAL OSC XO 10.0000MHZ HCMOS TTL
Detailed Description	10 MHz XO (Standard) HCMOS, TTL Oscillator 5V 8-D IP, 4 Leads (Half Size, Metal Can)



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Purchase and inquiry

Manufacturer Product Number:

ECS-2100A-100

Series:

ECS-2100

Base Resonator:

Crystal

Frequency:

10 MHz

Output:

HCMOS, TTL

Frequency Stability:

±100ppm

Operating Temperature:

0°C ~ 70°C

Current - Supply (Max):

25mA

Mounting Type:

Through Hole

Size / Dimension:

0.520" L x 0.520" W (13.20mm x 13.20mm)

Current - Supply (Disable) (Max):

-

Manufacturer:

ECS Inc.

Product Status:

Active

Type:

XO (Standard)

Function:

-

Voltage - Supply:

5V

Absolute Pull Range (APR):

-

Spread Spectrum Bandwidth:

-

Ratings:

-

Package / Case:

8-DIP, 4 Leads (Half Size, Metal Can)

Height - Seated (Max):

0.213" (5.40mm)

Environmental & Export classification

RoHS Status:

RoHS non-compliant

REACH Status:

REACH Unaffected

HTSUS:

8542.39.0001

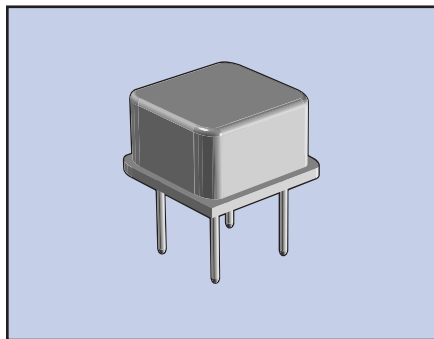
Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

ECS-2100 SERIES 8 PIN DIP CLOCK OSCILLATOR



The ECS-2100 Series clock oscillator offers low current drain and is compatible with HCMOS/TTL logic. The metal package with pin #4 case ground acts as a shielding to minimize radiation.

FEATURES

- HCMOS/TTL logic compatible
- Wide frequency range
- Low power consumption
- Resistance weld package
- 3.3V operation (optional)

PART NUMBERING GUIDE

PART NUMBER *	FREQUENCY STABILITY
ECS-2100A	±100 PPM
ECS-2100B	±50 PPM
ECS-2100C	±25 PPM

* Complete part number to include frequency. i.e. ECS-2100A-100 (100 = 10.000MHz)

OPERATING CONDITIONS/ELECTRICAL CHARACTERISTICS

PARAMETERS	FREQUENCY RANGE	CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
FREQUENCY RANGE (f ₀)	1.000 ~ 150.000		1.000		150.000	MHz
OPERATING TEMP. RANGE (T _{OPR})	1.000 ~ 150.000		0		+70	°C
STORAGE TEMP. RANGE (T _{STG})	1.000 ~ 150.000		-55		+125	°C
FREQUENCY STABILITY	1.000 ~ 150.000	All conditions*	-100		+100	PPM
INPUT CURRENT (I _{DD})	1.000 ~ 25.000			17	25	mA
	25.000 ~ 50.000			33	46	mA
	50.000 ~ 80.000			45	77	mA
	80.000 ~ 150.000			67	82	mA
OUTPUT SYMMETRY	1.000 ~ 80.000	50% V _{DD} level	45	50 ±3	55	%
	80.000 ~ 150.000	50% V _{DD} level	40	50 ±3	60	%
RISE TIME (T _R)	1.000 ~ 150.000	10% ~ 90% V _{DD} level			5	nS
FALL TIME (T _F)	1.000 ~ 150.000	90% ~ 10% V _{DD} level			5	nS
OUTPUT VOLTAGE (V _{OL}) (V _{OH})	1.000 ~ 150.000	I _{OL} = 16 mA			0.5	V
	1.000 ~ 150.000	I _{OH} = -16 mA	4.5			V
OUTPUT CURRENT (I _{OL}) (I _{OH})	1.000 ~ 100.000	V _{OL} = 0.5 V			16	mA
	1.000 ~ 150.000	V _{OH} = 4.5 V			-16	mA
OUTPUT LOAD	1.000 ~ 150.000	TTL			10	TTL
	1.000 ~ 80.000	HCMOS			50	pF
	80.000 ~ 150.000	HCMOS			30	pF
START-UP TIME (T _S)	1.000 ~ 150.000	0.0V TO 5.0V			10	mS
SUPPLY VOLTAGE (V _{DC})		+5.0 ±0.25				V _{DC}

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

PACKAGE DIMENSIONS (mm)

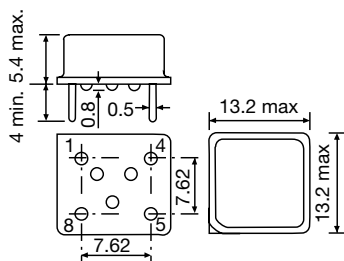


Figure 1) ECS-2100 Series – Side, Bottom and Top views

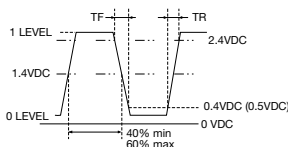


Figure 2) TTL Output Wave Form

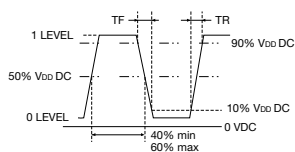


Figure 3) HCMOS Output Wave Form

PIN CONNECTIONS	
#1	NC
#4	GROUND
#5	OUTPUT
#8	+5V DC

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