

ECS-P8F3X (3.3V) and ECS-P8F5X (5V) J-Lead SMD PLL based programmable crystal oscillators.

[Request a Sample](#)

## OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

### ECS-P8F3X/P8F5X



- Low Voltage HCMOS
- PLL Technology
- Industry Standard Footprint
- RoHS Compliant

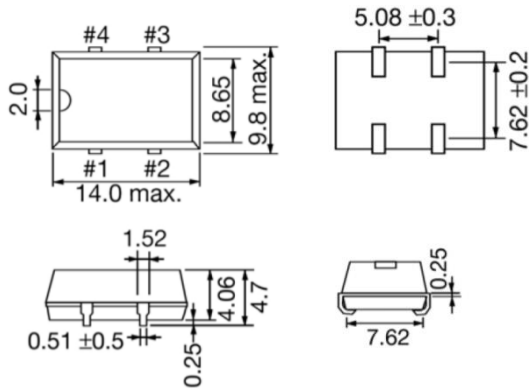
Parameters	Conditions	ECS-P8F3X (+3.3V)			ECS-P8F5X (+5V)			Units
		MIN	TYP	MAX	MIN	TYP	MAX	
<b>Frequency Range</b>		1.000		125.000	1.000		150.000	MHz
<b>Operating Temperature</b>	Standard	-10		+70	-10		+70	°C
	Extended (N Option)	-40		+85	-40		+85	°C
<b>Storage Temperature</b>		-55		+125	-55		+125	°C
<b>Supply Voltage</b>		+2.97	+3.3	+3.63	+4.5	+5.0	+5.5	VDC
<b>Frequency Stability*</b>	Option A			±100			±100	PPM
	Option B			±50			±50	PPM
<b>Input Current</b>				28			45	mA
<b>Output Disable Current</b>	Pin 1 = VIL			16			30	mA
<b>Output Symmetry</b>	@ 50% VCC Level			40/60			40/60	%
<b>Rise and Fall Times</b>	20% VCC to 80% VCC Level			4			4	ns
<b>Jitter</b>	1.0 ~ 33.0 MHz		±100	±250		±100	±250	pS p-p
	> 33.1 MHz		±50	±100		±50	±100	pS p-p
<b>"0" Level</b>	VOL			0.4			0.4	VDC
<b>"1" Level</b>	VOH	2.7			VCC-0.5			VDC
<b>Output Load (HCMOS)</b>	1.0 ~ 50.0 MHz			30			50	pF
	> 50.1 MHz			15			15	pF
<b>Enable/Disable Time</b>				150			100	ns
<b>Start-up Time</b>				10			10	ms
<b>Aging</b>	@ +25°C ±3°C, First Year			±5			±5	PPM

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

### Part Numbering Guide: Example ECS-P8F3X-20.000-AN

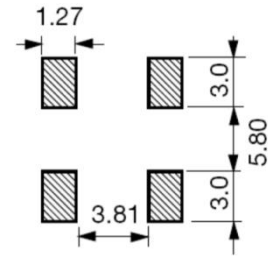
ECS	Series	Frequency MHz	Stability	Temperature Range
ECS	P8F3X = +3.3V P8F5X = +5.0V	20.000 = 20.000 MHz	A = ±100 PPM B = ±50 PPM	Blank = -10 ~ +70°C N = -40 ~ +85°C

**Package Dimensions (mm)**



**Figure 1) Top, Side, and Bottom views**

Pin Connections	
#1	Tri-State
#2	Ground
#3	Output
#4	VCC



**Figure 2) Land Pattern**

ECS-P8F3X (3.3V) Tri-State Control Voltage	
Pad 1	Pad 3
Open	Oscillation
2.0V Min	Oscillation
0.7V Max	No Oscillation

ECS-P8F5X (5V) Tri-State Control Voltage	
Pad 1	Pad 3
Open	Oscillation
2.0V Min	Oscillation
0.8V Max	No Oscillation