



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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- ▶ Low Voltage HCMOS
- ▶ Industry Standard Footprint
- ▶ PLL technology
- ▶ RoHS Compliant

ECS-P8F3X/P8F5X

SMD PROGRAMMABLE OSCILLATOR

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

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

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

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

DIMENSIONS (mm)

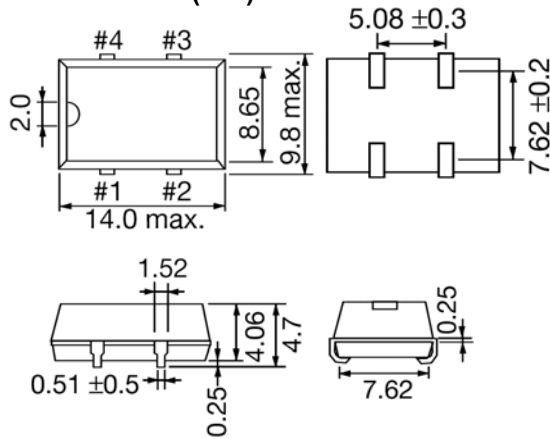


Figure 1) Top, Side, Bottom and End views

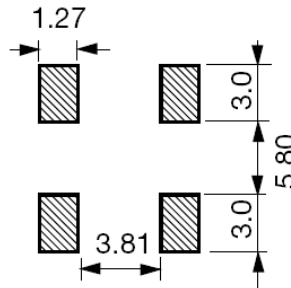


Figure 2) Suggested Land Pattern

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

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

PART NUMBERING GUIDE: Example ECS-P8F3X-20.000-AN

ECS	Series	Frequency	Stability	Temperature
	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