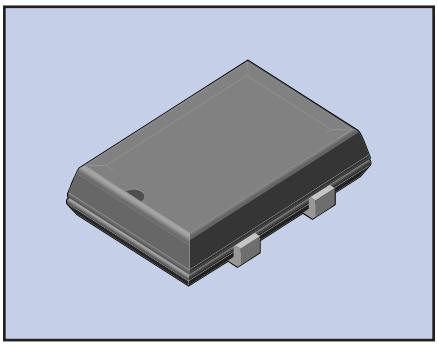
ECS-8FX SERIES SMD CLOCK OSCILLATOR



The ECS-8FMX (5V) and ECS-8FA3X (3.3V) are CMOS compatible, J-leaded SMD oscillators. The 8F Series utilizes a low power CMOS IC in a cost effective package suitable for reflow soldering.

FEATURES

- **5.0V & 3.3V versions**
- **Extended temperature range**
- **RoHS Compliant**
- **Tape and Reel (1,000 pcs STD)**

PART NUMBERING GUIDE

	FREQUENCY (50.0 MHz)		TAPE AND REEL
ECS-8FMX	–	500	–	TR

Sample Part Number: ECS-8FMX-500-TR

OPERATING CONDITIONS/ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECS-8FMX (5V)			ECS-8FA3X (3.3V)			UNITS
		MIN	TYP	MAX	MIN	TYP	MAX	
FREQUENCY RANGE		1.000		80.000	1.000		80.000	MHz
TEMPERATURE RANGE	Operating	-40˚		+85˚	-40˚		+85˚	˚C
	Storage	-55˚		+125˚	-55˚		+125˚	˚C
SUPPLY VOLTAGE		+4.5	+5.0	+5.5	+3.0	+3.3	+3.6	V DC
FREQUENCY TOLERANCE*	-10 ~ +70˚C			±100			±100	PPM
	-40 ~ 85˚C			±200			±200	PPM
INPUT CURRENT	1.0 ~ 30.0 MHz			23			9	mA
	30.1 ~ 80.0 MHz			35			20	mA
OUTPUT SYMMETRY	@ 1/2 Vcc Level	40/60		60/40	45/55		55/45	%
RISE AND FALL TIMES	1.0 ~ 30.0 MHz			8			6	ns
	30.1 ~ 80.0 MHz			7			6	ns
OUTPUT VOLTAGE	VOL			+0.5			+0.4	V
	VOH	Vcc -0.5			Vcc -0.4			V
OUTPUT LOAD	TTL			10				TTL
	CMOS			50			30	pF
START-UP TIME	1.0 ~ 30.0 MHz			4			4	ms
	30.1 ~ 80.0 MHz			10			10	ms
ENABLE/DISABLE TIME				100			100	ns

** Inclusive of 25˚C tolerance, operating temperature range, input voltage change, load change, aging shock and vibration.*
*** An internal pullup resistor from pin 1 to 4 allows active output if pin 1 is left open.*

PACKAGE DIMENSIONS (mm)

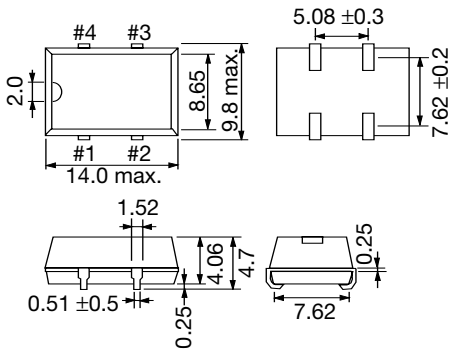


Figure 1) ECS-8FX Top and Side view

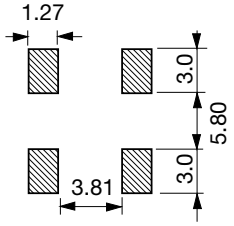


Figure 2) Land Pattern

PIN CONNECTIONS	
#1	TRI-STATE
#2	GND
#3	OUTPUT
#4	Vcc

TRI-STATE CONTROL VOLTAGE		
8FMX	8FA3X	OUTPUT
PIN 1	PIN 1	PIN 3
OPEN**	OPEN**	OSCILLATION
2V MIN	2.4V MIN	OSCILLATION
0.8 MAX	0.6 MAX	HIGH IMPEDANCE

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