

ECS-P53/P55 SERIES PROGRAMMABLE SMD CLOCK OSCILLATOR



The ECS-P53 (3.3V) and P55 (5V) is our smallest programmable crystal controlled oscillator. This sub-miniature, very low profile leadless ceramic package is ideal for today's SMD manufacturing environment.

Programmable (2 time)
3.3V & 5V Options
PLL Technology
Extended Temp Range
3.2 x 5 mm Footprint

PART NUMBERING GUIDE "EXAMPLE"

	SERIES	FREQUENCY (MHz)	STABILITY	EXTENDED TEMP (OPTIONAL)
ECS	- P53	- 16.312	- A	- N

Sample Part Number: ECS-P53-16.312-AN

OPERATING CONDITIONS/ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECS-P53 (3.3V)			ECS-P55 (5V)			UNITS
		MIN	TYP	MAX	MIN	TYP	MAX	
Frequency Range		1.000		125.000	1.000		125.000	MHz
Frequency Stability *	Option A			± 100			± 100	PPM
	Option B **			± 50			± 50	PPM
Operating Temperature	Standard	-10		+70	-10		+70	°C
	Extended (N Option)	-40		+85	-40		+85	°C
Storage Temperature		-55		+125	-55		+125	°C
Input Voltage (Vcc)		+3.0	+3.3	+3.6	+4.5	+5.0	+5.5	V DC
Input Current	1.0 ~ 40.0 MHz			15			25	mA
	40.1 ~ 70.0 MHz			22			40	mA
	70.1 ~ 125.0 MHz			30			50	mA
Output Symmetry at ½ Vcc level	1.0 ~ 70.0 MHz	45/55		55/45	45/55		55/45	%
	70.1 ~ 125.0 MHz	40/60		60/40	40/60		60/40	%
Rise and fall Times	20% Vcc to 80% Vcc			4			4	ns
Jitter	1.0 ~ 33.0 MHz			250			250	pS p-p
	33.1 ~ 125.0 MHz			250			200	pS p-p
"0" Level				Vcc x 0.1			Vcc x 0.1	V DC
"1" Level		Vcc x 0.9			Vcc x 0.9			V DC
Load				15			15	pF
Enable/Disable Time				150			100	ns
Start-Up Time				10			10	ms

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

Rev 12/01

** Not available with extended temp range option.

PACKAGE DIMENSIONS (mm)

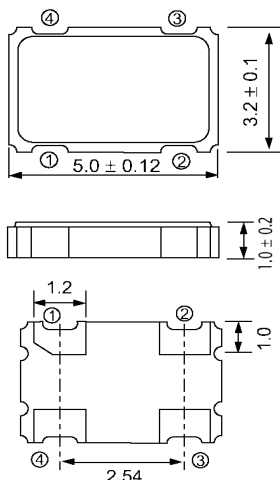


Figure 1) Top, Side and Bottom Views

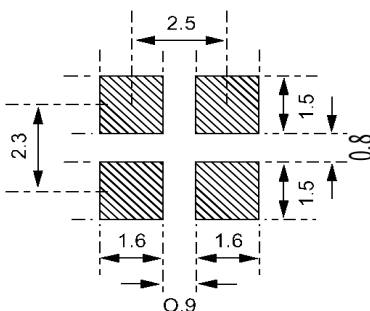


Figure 2) Land Pattern

ECS-P53 (3.3V) Tri-State Control Voltage	
Pin #1=Open	#3 = Output
Pin #1=+0.7V Min.	#3 = Output
Pin #1=+0.2V Max.	#3=High Impedance

ECS-P55 (5V) Tri-State Control Voltage	
Pin #1=Open	#3 = Output
Pin #1=+2.0V Min.	#3 = Output
Pin #1=+0.8V Max.	#3=High Impedance

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