



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!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



- ▶ 3.3 or 5.0V version
- ▶ 5 x 7 mm Footprint
- ▶ Low power consumption
- ▶ RoHS Compliant (Note 7 Exemption)

ECS-3951C/3953C

SMD CLOCK OSCILLATOR

ECS-3951C (5V) and ECS-3953C (3.3V) miniature SMD crystal controlled, low current clock oscillator in a ceramic SMD package.

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECS-3951C (+5V)			ECS-3953C (+3.3V)			UNITS
		MIN	TYP	MAX	MIN	TYP	MAX	
Frequency Range		1.000		80.000	1.000		125.000	MHz
Operating Temperature	Standard	0		+70	0		+70	°C
	Extended (N Option)	-40		+85	-40		+85	°C
Storage Temperature		-55		+125	-55		+125	°C
Supply Voltage		+4.5	+5.0	+5.5	+3.0	+3.3	+3.6	VDC
Frequency Stability *	Standard			± 100			± 100	ppm
	Option B			± 50			± 50	ppm
	Option C			± 25			± 25	ppm
Input Current	1.8 to 30.0 MHz			10			8	mA
	30.1 to 35.0 MHz			15			8	mA
	35.1 to 50.0 MHz			30			12	mA
	50.1 to 66.0 MHz			30			15	mA
	66.1 to 80.0 MHz			50			30	%
Output Symmetry	@ 50% VDD level			40/60			40/60	%
Rise and Fall Times	10% VDD to 90% level			10			15	ns
"0" level	VOL			10% * Vcc			10% * Vcc	VDC
"1" level	VOH	90% * Vcc			90% * Vcc			VDC
Output Load	HCMOS			15			15	pF
Startup time	1.8 to 36.0 MHz			5			5	ms
	36.1 to 80.0 MHz			10			10	ms
Output Current	VOL=0.5V/0.33V			4			4	mA
	VOL=4.5V/2.97V			-4			-4	mA
Enable/Disable Time				100			150	ns

DIMENSIONS (mm)

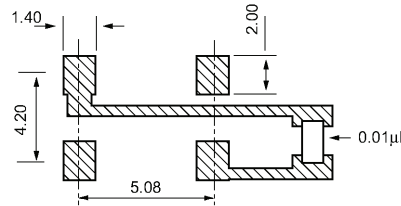
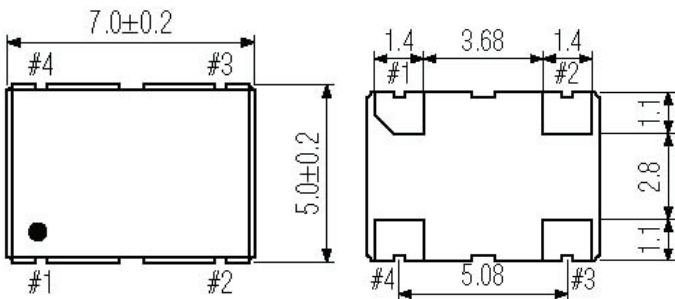


Figure 1) Top, Side and Bottom views

Figure 2) Suggested Land Pattern

Pin Connections

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

Tri-State Control Voltage

Pad 1	Pad 3
Open	Oscillation
Vcc x 0.9 Min.	Oscillation
Vcc x 0.1 Max.	No Oscillation

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

** Note: Internal pullup resistor from pin 1 to 4 allows active output if pin 1 is left open.

PART NUMBERING GUIDE: Example ECS-3953C-500-B

ECS	Series	Frequency Abbreviation	Stability	Temperature
3951C	= +5.0V	500	Blank = ± 100 ppm	Blank = 0 ~ +70°C
3953C	= +3.3V	See Frequency Abbreviations	B = ± 50 ppm	M = -20 ~ +70°C
			C = ± 25 ppm	N = -40 ~ +85°C

ECS-3953C is also compatible with a supply voltage of +3.0V DC ±0.3V