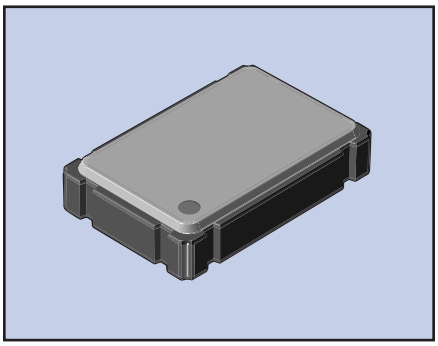
ECS-3951C/3953C SERIES SMD CLOCK OSCILLATOR



The ECS-3951C (5V) and ECS-3953C (3.3V) Series are miniature, crystal controlled, low current clock oscillator in a ceramic SMD package. The low profile package is ideal for today's advanced portable PC and instrumentation designs.

FEATURES

- **3.3 or 5.0V version**
- **Miniature profile**
- **Low power consumption**
- **Standby function**
- **Tape & Reel (1,000 pcs)**

PART NUMBERING GUIDE

	FREQUENCY (50.0 MHz)		STABILITY TOLERANCE (±50 PPM)
ECS-3951C	–	500	– B

Sample Part Number: ECS-3951C-500-B

OPERATING CONDITIONS/ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECS-3951C (5V)			ECS-3953C (3.3V)*			UNITS
		MIN	TYP	MAX	MIN	TYP	MAX	
FREQUENCY RANGE		1.800		80.000	1.800		80.000	MHz
TEMPERATURE RANGE	Operating	0		+70	0		+70	˚C
	Storage	-55		+125	-55		+125	˚C
SUPPLY VOLTAGE		+4.5	+5.0	+5.5	+3.0	+3.3	+3.6	V DC
FREQUENCY STABILITY**	Standard	-100	±40	+100	–100	±40	+100	PPM
	Option (B)	-50		+50	-50		+50	PPM
	Option (C)	-25		+25	-25		+25	PPM
INPUT CURRENT	1.8 ~ 30.0 MHz			10			8	mA
	30.0 ~ 35.0 MHz			15			8	mA
	35.0 ~ 50.0 MHz			30			12	mA
	50.0 ~ 66.0 MHz			30			15	mA
	66.0 ~ 80.0 MHz			50			30	mA
OUTPUT SYMMETRY	@ 1/2 Vcc Level	40/60	50 ±4	60/40	40/60	50 ±4	60/40	%
RISE AND FALL TIMES				10			15	ns
LOGIC "0" LEVEL	Vcc x 0.1V max.							
LOGIC "1" LEVEL	Vcc x 0.9V min.							
LOAD	HCMOS			15			15	pF
START-UP TIME	1.8 ~ 36.0 MHz			5			5	ms
	36.0 ~ 80.0 MHz			10			10	ms
OUTPUT CURRENT (IOL)	VOL=0.5V/0.33			4			4	mA
(IOH)	VOH=4.5V/2.97V			-4			-4	mA
ENABLE/DISABLE TIME				100			100	ns

** ECS-3953C is also compatible with a supply voltage of +3.0V DC ±0.3V*
*** 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.*
Note: A 0.01 µF bypass capacitor should be placed between VCC (Pin 4) and GND (Pin 2) to minimize power line noise.

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

ECS-3951C/3953C Standby Control Voltage	
PIN #1 = OPEN ***	#3 = OSCILLATION
PIN #1 = Vccx0.9 MIN	#3 = OSCILLATION
PIN #1 = Vccx0.1 MAX	#3 = HIGH IMPEDANCE

PACKAGE DIMENSIONS (mm)

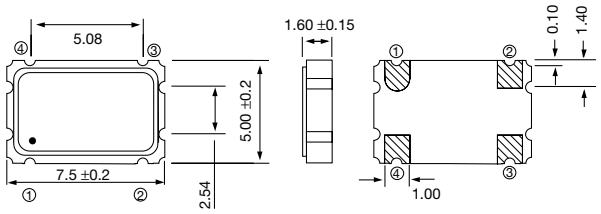


Figure 1) ECS-3951C/3953C Top, Side and Bottom views

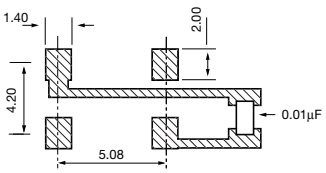


Figure 2) Land Pattern