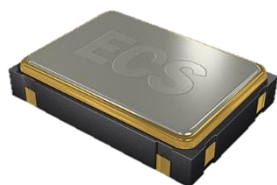


The ECS-VXO-97 offers the frequency control of a VCXO in a SMD, ceramic package. Frequency can be pulled up to  $\pm 100$  ppm by varying the control voltage of 2.5V by up to  $\pm 2.0$ V.

[Request a Sample](#)

### OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

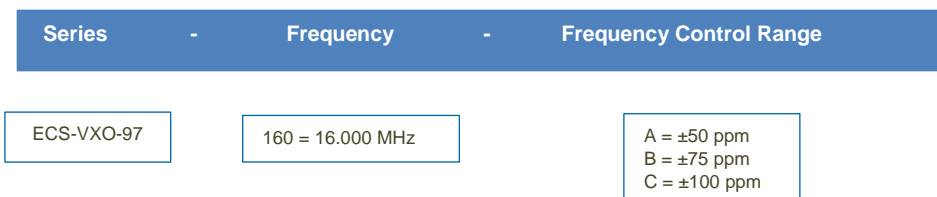
**ECS-VXO-97**



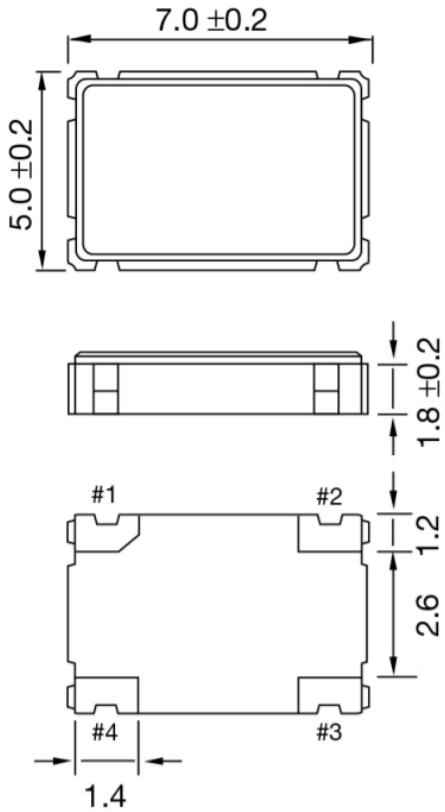
- 2.0 mm low profile
- Waveform symmetry of 40/60%
- SMD version
- 3.3V operation (optional)
- Tape & Reel (1000 pcs)
- PbFree/RoHS Compliant

Parameters	Conditions	ECS-VXO-97			Units
		MIN	TYP	MAX	
<b>Frequency Range</b>	$F_0$	8.000		40.000	MHz
<b>Frequency Stability</b>	All Conditions	-30		+30	PPM
<b>Frequency Control Range</b>	(Option A) VC = +2.5 VDC $\pm 2.0$ V	-50		+50	PPM
	(Option B) VC = +2.5 VDC $\pm 2.0$ V	-75		+75	PPM
	(Option C) VC = +2.5 VDC $\pm 2.0$ V	-100		+100	PPM
<b>Operating Temperature</b>	$T_{OPR}$	-10		+60	$^{\circ}$ C
<b>Storage Temperature</b>	$T_{STG}$	-30		+85	$^{\circ}$ C
<b>Input Voltage (<math>V_{CC}</math>)</b>		+4.75	+5	+5.25	V DC
<b>Control Voltage (<math>V_c</math>)</b>		+0.5	+2.5	+4.5	V DC
<b>Input Current</b>				25	mA
<b>Symmetry</b>	at $\frac{1}{2} V_{CC}$ Level (Output -10~+70 $^{\circ}$ C)	40/60	50 $\pm$ 10	60/40	%
<b>Rise and Fall Times</b>	(Output -10~+70 $^{\circ}$ C)			10	ns
<b>“0” Level</b>	(Output -10~+70 $^{\circ}$ C)			$V_{CC} \times 0.1$ V	V
<b>“1” Level</b>	(Output -10~+70 $^{\circ}$ C)	$V_{CC} \times 0.9$ V			V
<b>Load</b>	HCMOS (Output -10~+70 $^{\circ}$ C)			15	pF
<b>Frequency Linearity</b>		-10		+10	%
<b>Rise and Fall Times</b>				10	ms

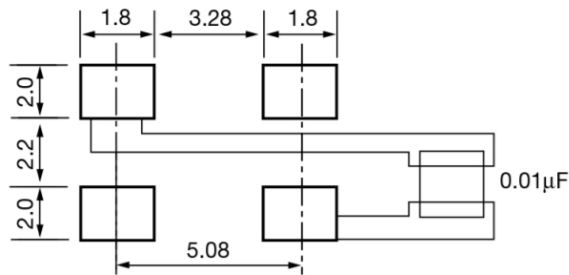
### Part Numbering Guide: Example ECS-VXO-97-160-A



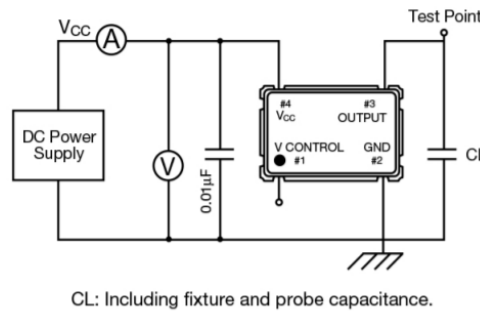
**Package Dimensions (mm)**



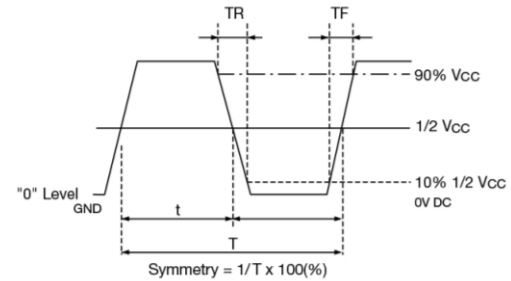
**Figure 1) Top, Side, and Bottom views**



**Figure 2) Land Pattern**



**Figure 3) Test Circuit**



**Figure 4) Output Wave Form**

Pin Connections	
#1	V Control
#2	Ground
#3	Output
#4	V <sub>cc</sub>

Package Data	
Item	Description
Cover	Metal
Base	Ceramic
Sealing	Seam-Weld
Terminal Plating	Gold