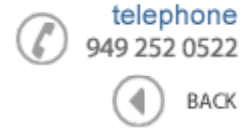




**Data Sheet**



Product Category: TXCO Surface Mount

Series Number	Package	Description	Last Modified
521 ~ 524	14 Pin DIP Low Profile SMD	HCMOS / TTL / Clipped Sine	Jan. 01 2007

**FEATURES**

- High stable output over wide temperature range
- 4.7mm height max low profile TCXO
- Industry standard DIP 14 pin lead spacing
- RoHs / Lead Free compliant



**OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS**

PARAMETERS	CONDITIONS	521	522	523	524	UNITS
<b>Output</b>	-	TTL	HCMOS	Clipped Sine	Compatible*	-
<b>Frequency Range</b>	fo	1.20 ~ 100.0		9.60 ~ 35.0	1.20 ~ 100.0	MHz
<b>Output</b>	Load	10TTL Load or 15pF HCMOS Load Max.		10K ohm // 10pF	-	-
	Level	High	2.4 VDC min.	VDD -0.5 VDC min.	1.0 Vp-p min.	-
		Low	0.4 VDC max.	0.5 VDC max.		
<b>Frequency Stability</b>	Vs. Temp Range	See Table 1				-
	Vs. Input Voltage (5%)	±0.5 max.				PPM
	Vs. Load	±0.3 max.				PPM
	Vs. Aging (@+25°C)	±1.0 per year				PPM
<b>Input</b>	Voltage	+5.0 ±5% / +3.3 ±5%				VDC
	Current	20 max. / 40 max.		3 max.	-	mA
<b>Frequency Adjustment</b>	-	±3.0 min.				PPM
<b>Rise Time / Fall Time</b>	-	10 max.		-	-	nS
<b>Duty Cycle</b>	-	50 ±10% max.		-	-	-
<b>Storage Temperature</b>	(TSTG)	-40 ~ +85				°C
<b>Voltage Control Range</b>	-	2.5 VDC ±2.0 Positive Transfer Characteristic				-

\*Compatible (524 Series) meets TTL and HCMOS mode simultaneously

**TABLE 1 - FREQUENCY STABILITY - TEMPERATURE TOLERANCE**

P/N Code	Temperature Range	Frequency Stability (PPM)							
		1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
A	0 ~ +50°C	x	x	x	x	x	x	x	x
B	-10 ~ +60°C	x	x	x	x	x	x	x	x
C	-10 ~ +70°C	O	x	x	x	x	x	x	x
D	-20 ~ +70°C	O	x	x	x	x	x	x	x
E	-30 ~ +60°C		O	x	x	x	x	x	x
F	-30 ~ +70°C		O	x	x	x	x	x	x
G	-30 ~ +75°C			x	x	x	x	x	x
H	-40 ~ +80°C					x	x	x	x

x	available all Frequency
O	avail up to 25MHz only

\*Other Temperature and Frequency Stabilities may be available. Check with Oscilent for details.

**PACKAGE DIMENSIONS (mm)**

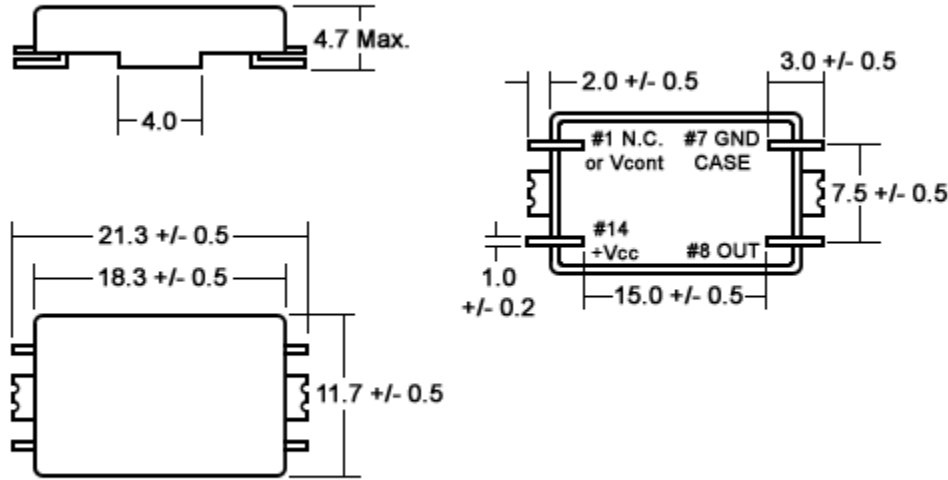


Figure 1) Bottom, Top, and Side Views

**PART NUMBER GUIDE**

Series Number	Frequency	Voltage Supply Option	Frequency Stability (max.)	Operating Temp. (°C)	Frequency Deviation
<b>522</b>	<b>- 4.0 M</b>	<b>- 3</b>	<b>45</b>	<b>H</b>	<b>- 5</b>
Oscilent 521 = TTL 522 = HCMOS 523 = Clipped Sine Wave 524 = Compatible	Enter your desired frequency e.g. 12.0M = 12.000MHz	5 = 5VDC 3 = 3.3VDC	15 = ±1.5 PPM 20 = ±2.0 PPM 25 = ±2.5 PPM 30 = ±3.0 PPM 35 = ±3.5 PPM 40 = ±4.0 PPM 45 = ±4.5 PPM 50 = ±5.0 PPM	A = 0 ~ +50 B = -10 ~ +60 C = -10 ~ +70 D = -20 ~ +70 E = -30 ~ +60 F = -30 ~ +70 G = -30 ~ +75 H = -40 ~ +80	NC = No Connection (TCXO) 05 = ±5 PPM min. 10 = ±10 PPM min.
<p><b>NOTE:</b> - Deviations on all parameters available. Please consult Oscilent for details.  <b>DEFINITIONS:</b> - Click on the characteristic names above for definitions of that particular characteristic.  <b>*STANDARDS:</b> - "Blank" part number selections indicate standard variables for that particular characteristic.  <b>PACKAGING:</b> - Add <b>-TR</b> for Tape/Reel. Click <a href="#">here</a> for tape/reel specifications</p>					

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**Series No.:** 521 to 524