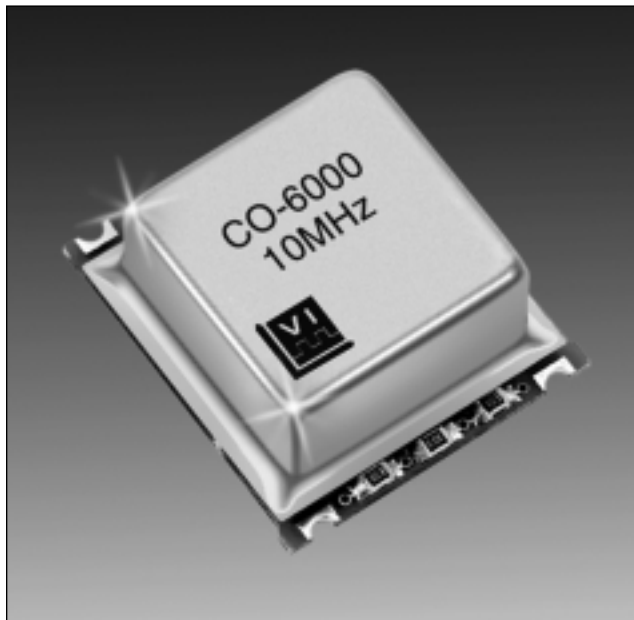


CO-6000 Series

Surface Mount Oven Controlled Crystal Oscillators



Features

- 5 MHz, 10MHz, 13MHz Standard. Other Frequencies Available from 4.8 MHz to 40 MHz.
- Stability as high as $\pm 5 \times 10^{-9}$ over 0°C to $+50^{\circ}\text{C}$
- Aging: 5×10^{-9} / day to 5×10^{-10} /day
- Package: 1.0" x 0.9" x 0.42" (25.4 x 22.0 x 10.5 mm)
- Low Profile, Surface Mount Design
- Supply voltage: +5 volts or +3.3 volts

Applications

- Telecommunication Systems
- Wireless Communication Equipment
- Data Communications
- Instrumentation

Description

Vectron International has introduced a series of low profile, surface mount, oven controlled crystal oscillators (OCXOs) available in frequencies from 4.8 MHz to 40 MHz.

The model CO-6000 series provides exceptionally low aging rates and high temperature stabilities and is packaged as a surface mount device (SMD), measuring 1.0" x 0.9" x 0.42" (25.4 mm x 22.0 mm x 10.5 mm).

The oscillators provide an aging rate of 1×10^{-9} /day with temperature stabilities as high as $\pm 5 \times 10^{-9}$ over 0°C to 50°C . They operate from a supply voltage of +5Vdc or +3.3 Vdc at a stabilized power of 1.0 watts.

The product finds application in telecommunications, data communications, frequency synthesizers, timing, navigation, telemetry and instrumentation systems.

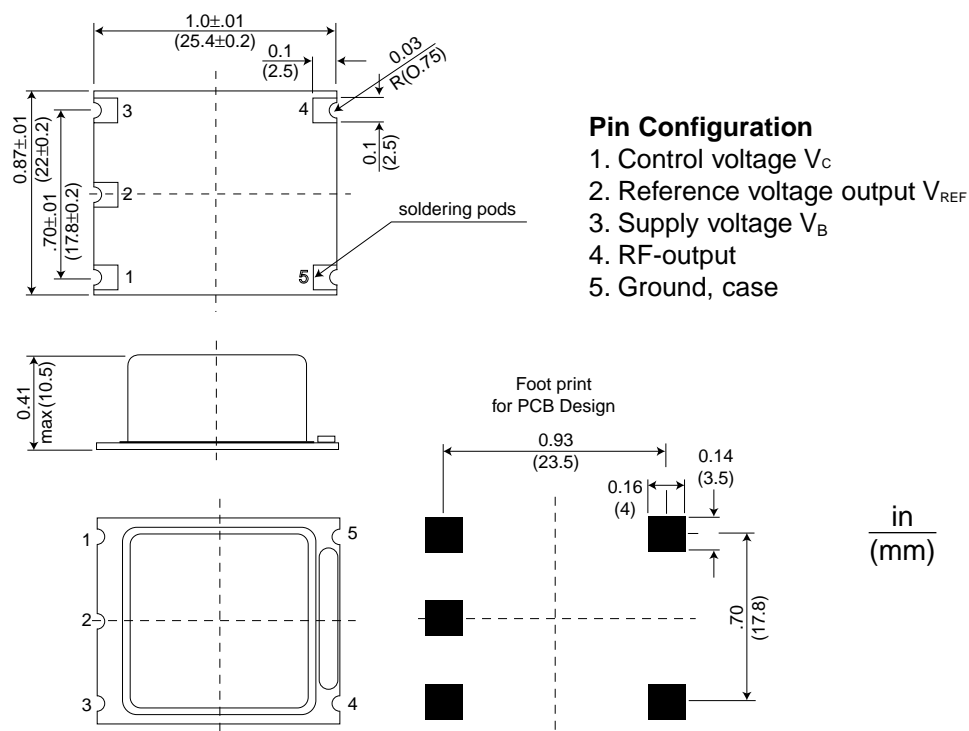
CO-6000 Series Surface Mount Oven Controlled Crystal Oscillators

Performance Characteristics

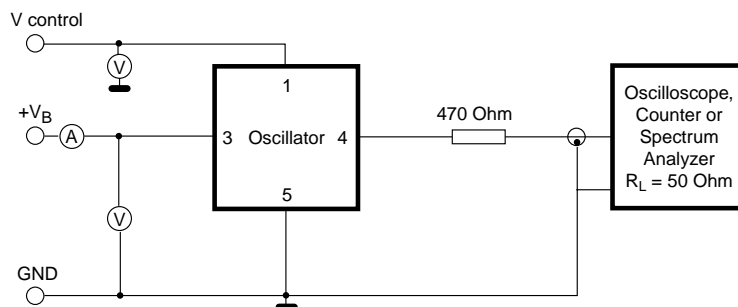
Parameter	Characteristic	
	CO-6004/6006/6007 Series (AT cut crystal)	CO-6007S/6008S Series (SC cut crystal)
Frequency:	4.8 MHz to 40 MHz with 5, 10, 13, 16.384, 19.44, 20, 20.48, 26 and 38.88 MHz standard	
Temperature Stability:	B28: $\pm 2 \times 10^{-8}$ over 0°C to +50°C C58: $\pm 5 \times 10^{-8}$ over 0°C to +70°C D17: $\pm 1 \times 10^{-7}$ over -20°C to +70°C	SB59: $\pm 5 \times 10^{-9}$ over 0°C to +50°C SC18: $\pm 1 \times 10^{-8}$ over 0°C to +70°C SD28: $\pm 2 \times 10^{-8}$ over -20°C to +70°C
Aging:	CO-6004: 1×10^{-8} /day (2×10^{-6} /yr) CO-6006: 3×10^{-9} /day (3×10^{-7} /yr) CO-6007: 1×10^{-9} /day (1×10^{-7} /yr)	CO-6007S: 1×10^{-9} /day (1×10^{-7} /yr) CO-6008S: 5×10^{-10} /day (5×10^{-8} /yr) optional at some frequencies
Warm-up: (after 24 hours off)	to within 1×10^{-7} of final frequency in 5 minutes @ 25°C	to within 1×10^{-8} of final frequency in 5 minutes @ 25°C
Frequency vs. Supply ($\pm 5\%$):	1×10^{-9} /percent	1×10^{-9} /percent
Short Term (Allan Variance):	1×10^{-10} /second	5×10^{-11} /second
Output level:	HCMOS/TTL Standard, >0.5 Vrms/50 ohm (+7 dBm) optional (LVCMOS output with +3.3Vdc power supply)	
Harmonics (sinewave):	-25 dBc	
Power supply:	+5 Vdc $\pm 5\%$; 2.5W peak @ -20°C; 1.0W stabilized at 25°C (+3.3 Vdc $\pm 5\%$, optional)	
Frequency adjustment:	$\pm 5 \times 10^{-6}$ typical for 0 to 4V control	$\pm 2 \times 10^{-6}$ typical for 0 to 4V control
Phase Noise: (typical)	-100 dBc/Hz @ 10 Hz offset -140 dBc/Hz @ 50 kHz offset	-120 dBc/Hz @ 10 Hz offset -145 dBc/Hz @ 50 kHz offset
Size mm (in.) :	25.4 x 22 x 10.5mm (1.0" x 0.9" x 0.42" max.)	
Base:	FR4 material with edge contacts	
Reflow:	240 (+5, -0)°C for 10 to 40 seconds	

CO-6000 Series Surface Mount Oven Controlled Crystal Oscillators

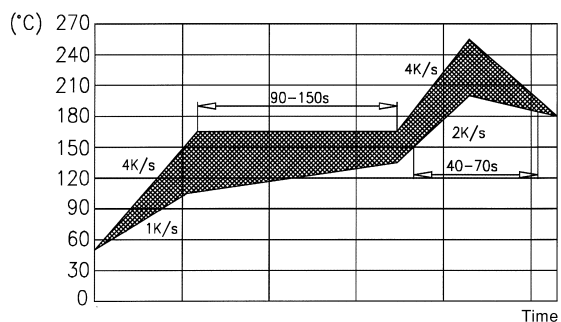
Outline Drawing



Test Circuit

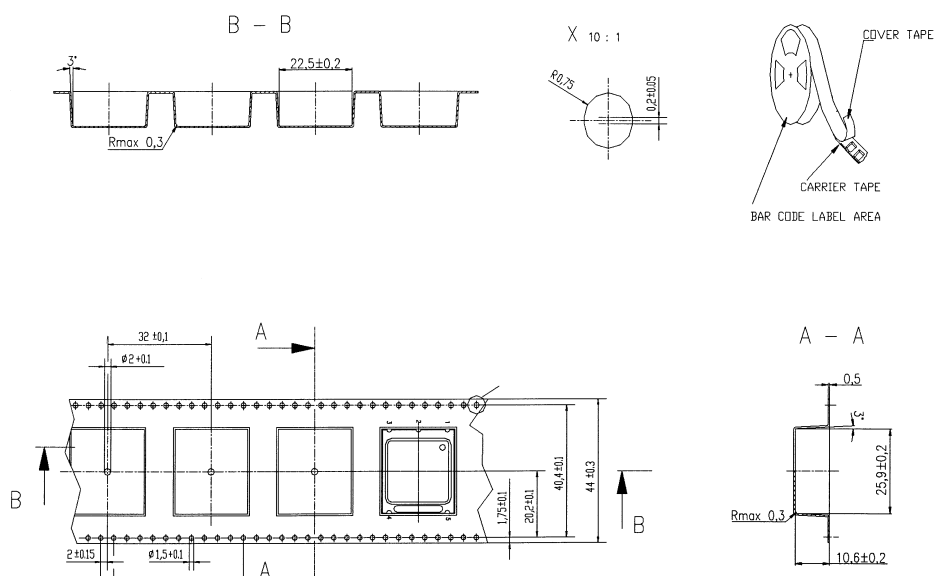


Recommended Soldering Profile



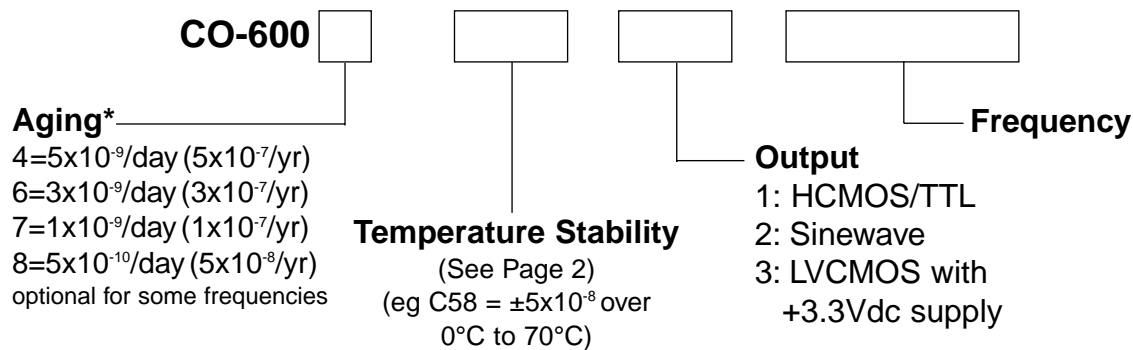
CO-6000 Series Surface Mount Oven Controlled Crystal Oscillators

Tape and Reel



Note: Dimensions in mm

How To Order



www.vectron.com

For additional information please contact:



USA: Vectron International • 166 Glover Avenue, Norwalk, CT 06856 Tel: 1-888-VECTRON-1 • Fax: 1-888-FAX-VECTRON
 EUROPE: In Denmark, Finland, Ireland, Israel, Norway, Spain, UK Tel: 44 (0) 1703 766 288 • Fax: 44 (0) 1703 766 822
 In Austria, Belgium, France, Germany, Italy, Luxembourg
 Netherlands, Sweden, Switzerland, Tel: 49 (0) 72 63 6480 • Fax: 49 (0) 72 63 6196
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