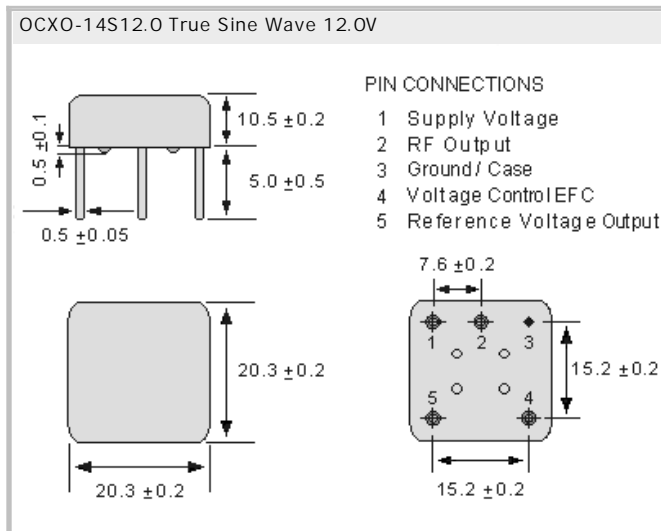


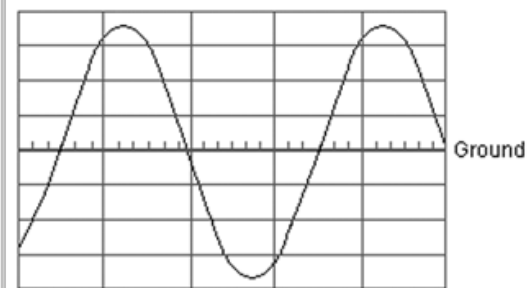


OCXO-20S12.0 True Sine Wave 12.0V  
Oven Controlled Crystal Oscillator

- DIL in metal case (20.2 x 13.2 x 10.5) mm
  - Output wave form: True Sine Wave, AT-cut crystal
  - Best Stability  $\pm 0.05\text{ppm}$
  - RoHS conform; Lead-free product
  - Vibration: 10 to 2000 Hz / 10 G
  - Shock: 2000 G, 0.3ms 1/2 sine
- Available in many standard and special frequencies



Sinus Output Wave Form



## Specifications

|                                   |  |
|-----------------------------------|--|
| Holder Type:                      | OCXO-20S12.0 True Sine Wave 12.0V (Voltage code is " 12.0 " )  |
| Supply Voltage range:             | + 12.0V $\pm 0.5\text{V}$  |
| Frequency Range:                  | 10 MHz to 100.000 MHz  |
| Initial Calibration Tolerance:    | $\pm 0.5\text{ppm max.}$ , $V_{con} = +2.5\text{V}$  |
| Frequency Stability (FS):         |  |
| (FS) Operating Temperature Range: | 0°C to + 60°C, typical $\pm 0.2$ (ppm), available $\pm 0.05$ (ppm)<br>-20°C to +70°C, typical $\pm 0.3$ (ppm), available $\pm 0.10$ (ppm)<br>-40°C to +85°C, typical $\pm 0.5$ (ppm), available $\pm 0.20$ (ppm) |
| (FS) Voltage Change:              | ( $\pm 0.5\text{V}$ ) $\pm 0.1\text{ppm}$  |
| (FS) Warm up time (+ 25°C):       | 3 minutes (max.)   |
| (FS) Aging:                       | $\pm 0.7$ ppm first year, 4.0ppm over 10 years   |
| (FS) Load Change:                 | $\pm 0.01\text{ppm}$ , for $\pm 5\%$ load condition change   |
| Voltage Control on pin 1 (EFC):   | Electronic Frequency Tuning (is standard)  |
| (EFC) Freq. Deviation Range:      | $\pm 4.0\text{ppm}$ (min.), Reference to fo at + 25°C  |
| (EFC) Control Voltage Range:      | (+ 5.0V) 0.0 to 5.0V   |
| (EFC) Transfer Function:          | Positive: Increasing control voltage increases output frequency  |
| (EFC) Input Impedance:            | 47 k Ohm (min.)  |
| (EFC) Linearity:                  | $\pm 10\%$ (max.)  |
| Power Dissipation (at 25°C):      | steady-state : 1.0 W (max.) , turn-on: 2.0W (max.)   |
| Output:                           | Output Level : + 3 dBm (typ.) into 50 Ohm load<br>Harmonic: -10 dBm (min.) , Spurious: -70 dBc (min.)  |
| SSB Phase Noise AT-cut:           | -75dBc/Hz @ 1Hz, -100dBc/Hz @ 10Hz, -130dBc/Hz @ 100Hz,<br>-140dBc/Hz @ 1kHz, -150dBc/Hz @ 10kHz   |
| SSB Phase Noise SC-cut:           | -85dBc/Hz @ 1Hz, -120dBc/Hz @ 10Hz, -140dBc/Hz @ 100Hz,<br>-145dBc/Hz @ 1kHz, -150dBc/Hz @ 10kHz   |

### GERMANY:

COMTEC CRYSTALS GmbH · Sultenstrasse 12-14  
8 5 5 8 6 P o i n g / G E R M A N Y  
Phone +49 8121 778160 · Fax +49 8121 778177  
e-Mail [info@comtec-crystals.com](mailto:info@comtec-crystals.com)  
Internet: <http://www.comtec-crystals.com>  
Subject to change without prior notice.



Technical Data and Graphics are all under  
Copyright (c) of Comtec Crystals Group.

### FRANCE:

COMTEC CRYSTALS SARL · 23, rue du Faucon  
6 7 5 0 0 H a g u e n a u / F R A N C E  
Phone +33 388 732162 · Fax +33 388 730118  
e-Mail [sales@comtec-crystals.com](mailto:sales@comtec-crystals.com)  
Internet: <http://www.comtec-crystals.com>  
Sous réserve de modifications.