

## OCXO SERIES 3000

### ■ FEATURES

Small OCXO in EURO package  
Frequencies up to 160 MHz

### ■ ELECTRICAL PERFORMANCE

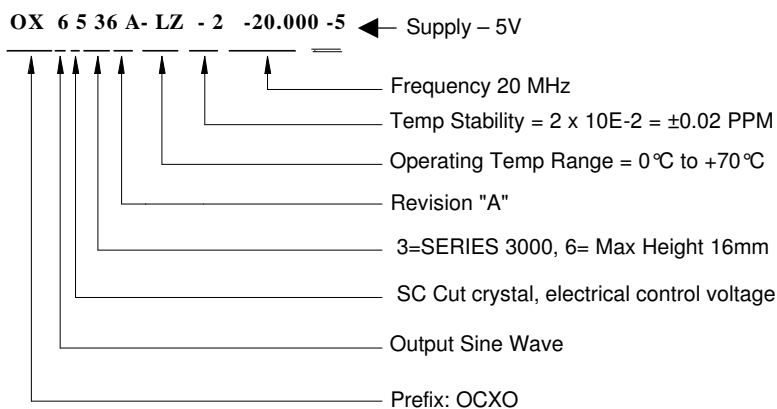
| PARAMETER   | OCXO SERIES 3000  |  |         |             |
|---|---|--|---------|-------------|
|   | AT CUT CRYSTAL  | SC CUT CRYSTAL   |         |             |
| Supply voltage, nom.  | 12V, 5V $\pm 5\%$ Standard (3.3V Optional)                            |  |         |             |
| Power dissipation steady state  | 1.5 Watt Max.   |  |         |             |
| Heat up power   | 3 Watt Max  |  |         |             |
| Heat up time.   | 3 min Max   |  |         |             |
| Frequency range   | 1 To 160 MHz Standard   |  |         |             |
| Frequency Adjustment  | $\pm 10$ PPM Min (0 to 5V)  | $\pm 0.7$ PPM Min (0 to 5V)                              |         |             |
| Freq. stability vs. temperature<br>LX: 0°C to 60°C<br>FZ: -30°C to 70°C<br>D3: -40°C to 85° | $\pm 0.05$ PPM  | $\pm 0.01$ PPM   |         |             |
|   | $\pm 0.1$ PPM   | $\pm 0.02$ PPM   |         |             |
|   | $\pm 0.25$ PPM  | $\pm 0.03$ PPM   |         |             |
|   | (Standard, contact factory for different temp ranges and stabilities) |  |         |             |
| Freq. stability vs. supply changes  | $\pm 0.015$ PPM Max for $\pm 5\%$ Change                              | $\pm 0.010$ PPM Max for $\pm 5\%$ Change                 |         |             |
| Freq. stability vs. load changes  | $\pm 0.01$ PPM Max for $\pm 5\%$ Change                               | $\pm 0.005$ PPM Max for $\pm 5\%$ Change                 |         |             |
| Long term stability (Aging)   | $\pm 4$ PPM Max for 10 Years<br>$\pm 0.005$ PPM/Day Max.              | $\pm 1$ PPM Max for 10 Years<br>$\pm 0.002$ PPM/Day Max. |         |             |
| Output  | HCMOS/TTL/Sine 0 to +7dBm (Low voltage CMOS Available)                |  |         |             |
| Harmonics, Sub Harmonics  | -30dBc(Sine Output)   |  |         |             |
| Spurious  | -75dBc(Sine Output)   |  |         |             |
| Duty cycle  | 40/60% to 60/40%(HCMOS)   |  |         |             |
| Rise / fall time  | 10nS Max. (HCMOS, 10%~90%Vout, 90%~10%Vout)                           |  |         |             |
| Short term Stability (10MHz)  | 1 E-10 /Sec   | 5 E-11 /Sec  |         |             |
| Phase Noise<br>(Sine Output 10MHZ – under static conditions)                                | Offset  | Phase Noise  | Offset  | Phase Noise |
|   | 10Hz  | -90 dBc/Hz   | 10Hz    | -110 dBc/Hz |
|   | 100Hz   | -125 dBc/Hz  | 100Hz   | -130 dBc/Hz |
|   | 1000Hz  | -135 dBc/Hz  | 1000Hz  | -140 dBc/Hz |
|   | 10000Hz   | -150 dBc/Hz  | 10000Hz | -150 dBc/Hz |

Note: All Typical parameters for a 10MHz output and 5V Supply, for different frequencies consult factory

## ■ HOW TO ORDER (PART NUMBER)

| Prefix | Output Type                      | Cut Type   | Series   | Revision | Temperature Range  | Stability  | Frequency | Supply Voltage                           |
|--------|----------------------------------|--|--|----------|--|--|-----------|--|
| OX     | 2: HCMOS<br>4: LVCMOS<br>6: SINE | 0: AT (No Vcontrol)<br>1: SC (No Vcontrol)<br>4: AT (Elect Vcontrol)<br>5: SC (Elect Vcontrol) | 3X: 3000<br>34:<br>Height=<br>0.5"/12.7mm<br>36:<br>Height=<br>0.63"/16mm<br>37:<br>Height=<br>1"/25.4mm<br>39:<br>Height=<br>0.75"/19mm | A        | First letter Lowest Temperature,<br>Second letter Highest Temperature:<br>From A=-55°C to Z=+70°C, Then:<br>1=+75°C, 2=+80°C,<br>3=+85°C... in 5°C steps<br>Example:<br>LZ: +0°C to +70°C<br>LX: +0°C to +60°C<br>FZ: -30°C to +70°C<br>D3: -40°C to +85°C | Value x 10E-2 in PPM<br><br>Example<br><br>28=<br>0.28PPM<br><br>10=<br>0.1PPM | In MHZ    | 3.3: 3.3V<br>5: 5V<br>12: 12V<br>15: 15V |

Example:



## ■ MECHANICAL SPECIFICATION

