

## OCXO SERIES 5100

### ■ FEATURES

Miniature OCXO in modified CO-15 package  
 Low current consumption  
 Frequencies up to 155.520 MHz

### ■ ELECTRICAL PERFORMANCE

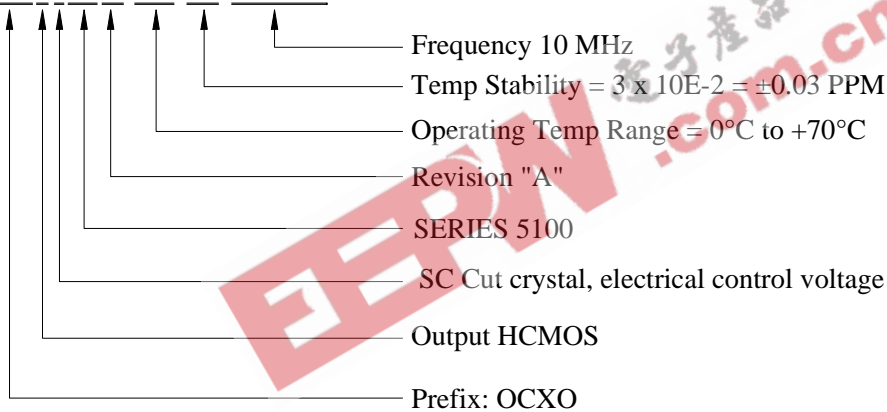
| PARAMETER   | OCXO SERIES 5000   |   |
|---|--|---|
|   | AT CUT CRYSTAL   | SC CUT CRYSTAL  |
| Supply voltage, nom.  | 5V $\pm$ 5% (3.3V Optional)  |   |
| Power dissipation steady state  | 1.5 Watt Max.  |   |
| Heat up power   | 3 Watt Max   |   |
| Heat up time.   | 3 min Max  |   |
| Frequency range   | 1 To 155.520 MHz Standard  |   |
| Frequency Adjustment  | $\pm$ 10PPM Min (0 to 5V)  | $\pm$ 0.7PPM 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<br>$\pm$ 0.1 PPM<br>$\pm$ 0.25 PPM  | $\pm$ 0.01 PPM<br>$\pm$ 0.02 PPM<br>$\pm$ 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   | -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  | 1 E-10 /Sec  | 5 E-11 /Sec   |
| Phase Noise   | Offset      Phase Noise<br>10Hz        -90 dBc/Hz<br>100Hz       -125 dBc/Hz<br>1000Hz      -135 dBc/Hz<br>10000Hz     -150 dBc/Hz | Offset      Phase Noise<br>10Hz        -110 dBc/Hz<br>100Hz       -125 dBc/Hz<br>1000Hz      -140 dBc/Hz<br>10000Hz     -150 dBc/Hz |

## ■ HOW TO ORDER (PART NUMBER)

| Prefix | Output Type                   | Cut Type  | Series  | Revision | Temperature Range  | Stability   | Frequency |
|--------|-------------------------------|---|---------|----------|--|---|-----------|
| 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) | 50:5000 | 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>28=<br>0.28PPM<br>M<br><br>10=<br>0.1PPM | In MHZ    |

Example:

### OX2551A-LZ- 3 -10.000



## ■ MECHANICAL SPECIFICATION

