OCXO - OC30E5S SERIES

SC-Cut Crystal - Sine Wave - 5.0 Volts

- **Frequency Range 10.0MHz to 100.0MHz**
- **36.2 x 27.7 x 16.0mm 5 pin metal, solder-sealed package**
- **Supply Voltage 5.0 Volts**
- **SC-Cut Crystal**
- **Sine Wave Output**
- **EFC (Voltage control) as standard**

DESCRIPTION

OC30E5S series oven-controlled crystal oscillators are close tolerance OCXOs with excellent phase noise performance.

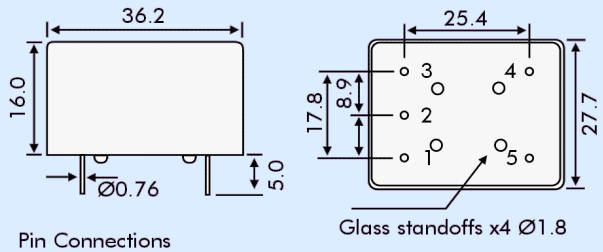
SPECIFICATION

Crystal Cut:	SC-cut
Output Waveform:	Sine Wave
Supply Voltage:	+5.0 VDC ±0.2V
Frequency Range:	1.25MHz to 100.0MHz
Initial Calibration Tolerance:	±0.5ppm max.(at Vcon +2.5V)
Frequency Stability	
over 0° to +60°C:	±0.01ppm
over -20° to +70°C:	±0.02ppm
over -40° to +85°C:	±0.03ppm
vs. Voltage Change:	<±20ppb for ±5% change
vs. Ageing:	±2.0ppb max per day ±0.1ppm per first year ±0.5ppm over 10 years
vs. Load Change:	<±20ppb for ±5% change
Warm-up Time:	1 minutes max. to within ±0.1ppm of nominal freq.
Voltage Control	
Control Voltage Centre:	+2.5 Volts (Vcon)
Freq. Deviation Range:	±0.5ppm min., ±2ppm max. ref. to 25°C and O.T.R.
Control Voltage Range:	2.5V ±2.0Volts
Transfer Function:	Positive: Increasing control voltage increases output frequency
Input Impedance:	100kΩ minimum
EFC Linearity:	±10% maximum
Power Dissipation:	1.2W max. steady state 3.5W max. at turn on
Output	
Output Level:	+3dBm typ., +8dBm max. into 50Ω load
Harmonics:	-30dBc min.
Spurious:	-75dBc min.
Reference Voltage:	+4.0±0.3VDC or custom
Envionmental	
Storage Temperature:	-55° to +125°C
Shock:	2000g, 0.3ms ½ sine
Vibration:	10 ~2000Hz / 10g

PHASE NOISE (at 10MHz)

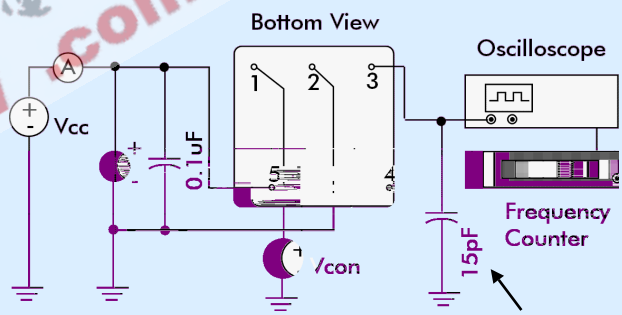
Offset	dBc/Hz
1Hz	-85
10Hz	-120
100Hz	-140
1kHz	-145
10kHz	-150

OUTLINE & DIMENSIONS



Pin Connections
1. Voltage Control EFC
2. Ground/case
3. RF Output
4. Reference Voltage Output
5. Supply Voltage

TEST CIRCUIT



Square wave output load: 15Ω
Sine Wave output load: 50Ω

PART NUMBER FORMAT

Example: **OC30GE5S-10.000-0.02/-20+70**

OCXO Package: OC30
RoHS Compliance
G: RoHS Compliant
Blank: Non-compliant
E: Output Sine Wave
5: Supply Voltage 5.0Volts
S: SC-Cut Crystal
Nominal Frequency 10.0MHz
Stability in ±ppm
Operating Temperature Range °C
Lowest Temperature/Highest Temperature

EUROQUARTZ LIMITED Blacknell Lane CREWKERNE Somerset UK TA18 7HE
Tel: +44 (0)1460 230000 Fax: +44 (0)1460 230001 Email: info@euroquartz.co.uk www.euroquartz.co.uk