

SC-Cut Crystal - Sine Wave - 12.0 Volts

- Frequency Range 10.0MHz to 100.0MHz
- 25.4 x 25.4 x 16.0mm 5 pin metal, solder-sealed package
- Supply Voltage 12.0 Volts
- SC-Cut Crystal
- Sine Wave Output
- EFC (Voltage control) as standard



DESCRIPTION

OC11E12S 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:	+12.0 VDC $\pm 0.5V$
Frequency Range:	10.0MHz to 100.0MHz
Initial Calibration Tolerance:	$\pm 0.5ppm$ max. (at $V_{CON} + 2.5V$)
Frequency Stability	
over 0° to +60°C:	$\pm 0.01ppm$
over -20° to +70°C:	$\pm 0.02ppm$
over -40° to +85°C:	$\pm 0.03ppm$
vs. Voltage Change:	$< \pm 20ppb$ for $\pm 5\%$ change
vs. Ageing:	$\pm 2.0ppb$ max per day $\pm 0.1ppm$ per first year $\pm 0.5ppm$ over 10 years
vs. Load Change:	$< \pm 20ppb$ for $\pm 5\%$ change

Warm-up Time: 1 minutes max. to within $\pm 0.1ppm$ of nominal freq.

Voltage Control	
Control Voltage Centre:	+2.5 Volts (V_{CON})
Freq. Deviation Range:	$\pm 0.5ppm$ min., $\pm 2ppm$ max. ref. to 25°C and O.T.R.
Control Voltage Range:	2.5V ± 2.0 Volts
Transfer Function:	Positive: Increasing control voltage increases output frequency
Input Impedance:	100k Ω minimum
EFC Linearity:	$\pm 10\%$ maximum

Power Dissipation: 1.0W max. steady state
3.0W max. at turn on

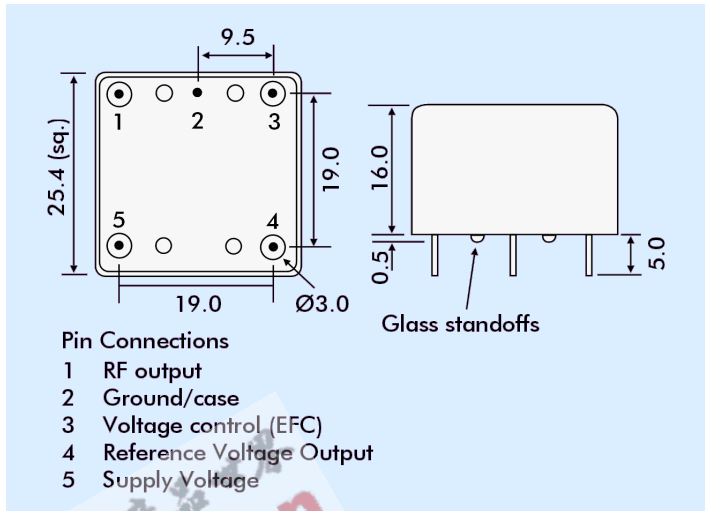
Output	
Level:	+3dBm typ., +8dBm max into 50 Ω load
Harmonic:	-30dBc min.
Spurious:	-75 dBm min.
Reference Voltage:	+4.0 ± 0.3 VDC or custom

Environmental	
Storage Temperature:	-55° to +125°C
Shock:	2000g, 0.3ms $\frac{1}{2}$ sine
Vibration:	10 ~2000Hz / 10g

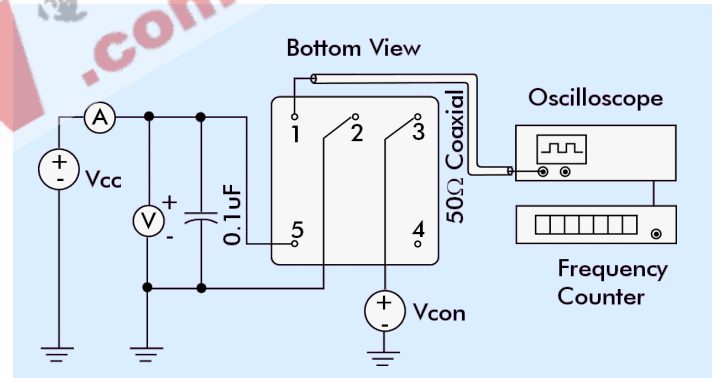
PHASE NOISE (at 10MHz)

Offset	dBc/Hz
1Hz	80
10Hz	-120
100Hz	-140
1kHz	-145
10kHz	-150

OUTLINE & DIMENSIONS



TEST CIRCUIT



PART NUMBER FORMAT

Example: **OC11GE12S-10.000-0.02/-20+70**

