

SC-Cut Crystal - Square Wave - 12.0 Volts 1.25MHz ~ 100.0MHz

- Frequency Range 1.25MHz to 100.0MHz
- 20.3 x 20.3 x 10.5mm 5 pin metal, solder-sealed package
- Supply Voltage 12.0 Volts
- SC-Cut Crystal
- Squarewave Output
- EFC (Voltage control) as standard



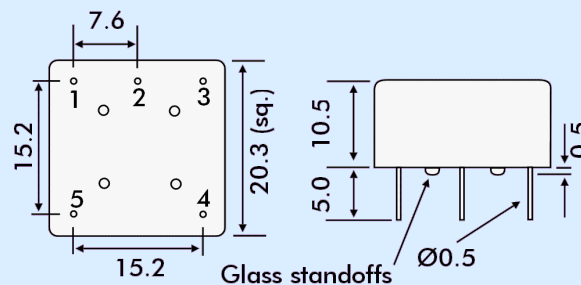
DESCRIPTION

OC18T12S series oven-controlled crystal oscillators are close tolerance OCXOs with excellent phase noise performance.

SPECIFICATION

Crystal Cut:	SC-Cut
Output Waveform:	Square Wave
Supply Voltage:	+12.0 VDC $\pm 0.5V$
Frequency Range:	1.25MHz to 100.0MHz
Initial Calibration Tolerance:	± 0.5 ppm max. (at V_{CON} 2.5V)
Frequency Stability	
over 0° to +60°C:	± 0.01 ppm
over -20° to +70°C:	± 0.01 ppm
over -40° to +85°C:	± 0.03 ppm
vs. Voltage Change:	$< \pm 20$ ppb for $\pm 5\%$ change
vs. Ageing:	± 2.0 ppb max per day ± 0.1 ppm per first year ± 0.5 ppm over 10 years
vs. Load Change:	$< \pm 20$ ppb for $\pm 5\%$ change
Warm-up Time:	1 minute max. to within ± 0.1 ppm of nominal freq.
Voltage Control	
Control Voltage Centre:	+2.5 Volts (V_{CON})
Freq. Deviation Range:	± 0.5 ppm min., ± 2 ppm 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:	200mA max. steady state 500mA max. at turn on

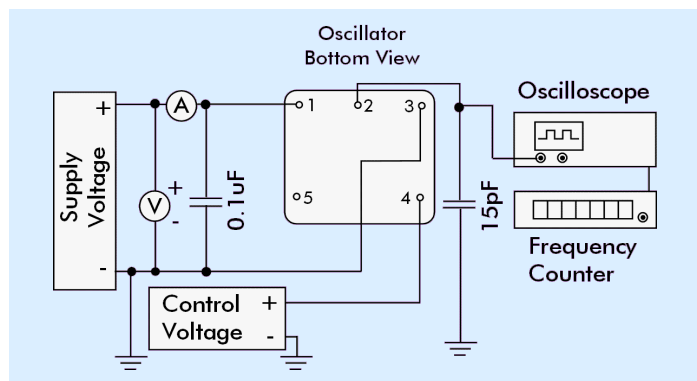
OUTLINE & DIMENSIONS



Pin Connections

- 1 Supply Control
- 2 RF Output
- 3 Ground/case
- 4 Voltage Control EFC
- 5 Reference Voltage Output

TEST CIRCUIT



PART NUMBER FORMAT

Example: **OC18GT12S-10.000-0.01/-20+70**

OCXO Package: OC18

RoHS Compliance

G: RoHS Compliant

Blank: Non-compliant

T: Output Squarewave

12: Supply Voltage 12.0Volts

S: SC-Cut Crystal

Nominal Frequency 10.0MHz

Stability in ppm

Operating Temperature Range °C

Lowest Temperature/Highest Temperature

PHASE NOISE (at 10MHz)

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