

STP 2207: OCXO Stratum 3 Performance over -40 to 85°C

ISSUE 2: 20 OCTOBER 2004

Description

- Miniature AT Cut OCXO (CFPO-6 B)

Package Outline 25

- 25.4 x 25.4 x 12.7mm

Supply Option

- Standard: 5V (5)

Nominal Frequency

- 12.8MHz
- Initial accuracy at delivery: @+25°C $\leq \pm 1.0 \times 10^{-6}$

Supply Voltage

- +5.0V $\pm 5\%$
- Power consumption during warm-up $\leq 5W$
- Under steady state at 25°C/calm air $\leq 1.25W$

Warm Up Time

- $\leq \pm 1 \times 10^{-7}$ after 5 minutes

Output Compatibility

- Standard: HCMOS (C)
- VoH / VoL: $> + 2.5V / < + 0.55V$
- Duty Cycle at 2.5V: 40 / 60%
- Rise and Fall Time 10/90%: 10ns / 15pF Output

Frequency Stability Vs Operating Conditions

- Over operating temperature range -40 to 85°C $\leq \pm 280\text{ppb}$
- Supply Voltage 5V $\pm 5\%$: $\leq \pm 10\text{ppb}$
- 1 to 2 HCMOS loads: $\leq \pm 10\text{ppb}$

Ageing

- per day (measured before shipment): $\leq \pm 3.0 \times 10^{-9}$
- per year (extrapolation after 30 days of operation) $\leq \pm 5.0 \times 10^{-7}$
- Over lifetime (extrapolation over 20 years) $< \pm 3.0 \times 10^{-6}$

Phase Noise (Typical Figures)

- 10Hz: -100dBc/Hz
- 100Hz: -125dBc/Hz
- 1kHz: -140dBc/Hz
- 10kHz and beyond: -145dBc/Hz

EFC (option not required)

Environmental Conditions (non-operating)

- Storage Temperature Range: -55 to 90°C
- Shocks 50g: 11ms - 1/2 Sine IEC 60068-2-27 Test Ea/Severity 50A
- Vibrations 10g: 10 -500Hz IEC 60068-2-06 Test Fc/Severity 500/10

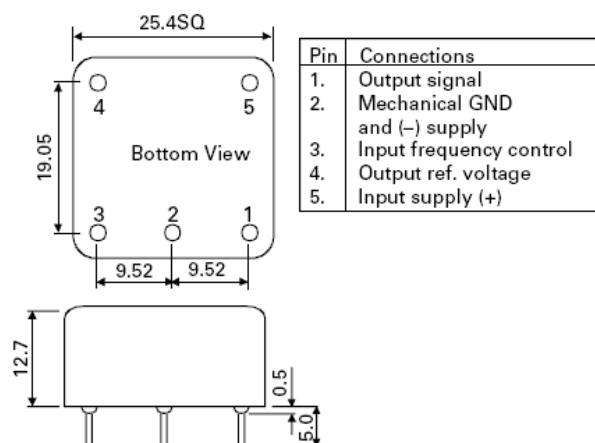
Documentation

- Table of results associated to prototypes (if required) and qualification parts
- Certificate of Conformance for first run of production
- Measurement and data stored over a period of 2 years for serial production

Marking

- Manufacturer's Name: RAKON
- Part Number (for Series): STP 2207
- Nominal Frequency: 12.8MHz
- Serial Number (6 digits = 1 letter + 5 numerals) = L 12345
- Manufacturing Date Code (4 digits = 2 for year + 2 for Week) - YY WW

Outline in mm



Note: Pin 3 & 4 corresponds to EFC Input and Reference Voltage (+4V) options

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