

STP 2208: Stratum 3E Performance (0 to 70°C)

ISSUE 2; 20 OCTOBER 2004

Description

- Miniature SC Cut OCXO (CFPO-6 A)

Package Outline 25

- 25.4 x 25.4 x 12.7mm

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 $\leq 3.5W$
- Under steady state at 25°C/calm air $\leq 1.25W$

Warm -up Time

- @ 25°C within $\pm 1 \times 10^{-7}$ of final frequency with reference after 24 hours on : ≤ 5 min (typ.2min)

Output Compatibility

- Standard: HCMOS (C)
- VoH / VoL: $> + 4.0V / < +0.4V$
- Duty Cycle at 2.5V: $50 \pm 10\%$
- Rise and Fall Time 10/90%: 10ns / 15pF Output

Frequency Stability Vs Operating Conditions

- Within operating temperature range from 0 to 70°C $\leq 10 \times 10^{-9}$
- Versus Supply Voltage(+5 V $\pm 5\%$): $\leq \pm 5 \times 10^{-9}$
- Versus Load Changes (from 1 to 2 HCMOS loads): $\leq \pm 5 \times 10^{-9}$

Ageing

- per day (measured before shipment) : $\leq \pm 1.0 \times 10^{-9}$
- per year (extrapolation after 30 days of operation) $\leq \pm 1.5 \times 10^{-7}$
- Over lifetime (extrapolation over 20 years) $\leq \pm 2.0 \times 10^{-6}$
- Short Term (Allan standard deviation 1s / 100 samples): $\leq \pm 1.0 \times 10^{-11}$

Phase Noise (Typical Figures)

- 1Hz: -82dBc/Hz
- 10Hz: -112dBc/Hz
- 100Hz: -135dBc/Hz
- 1kHz: -145dBc/Hz
- 10kHz and beyond: -150dBc/Hz

Environmental Conditions (non-operating, only for qualification)

- 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

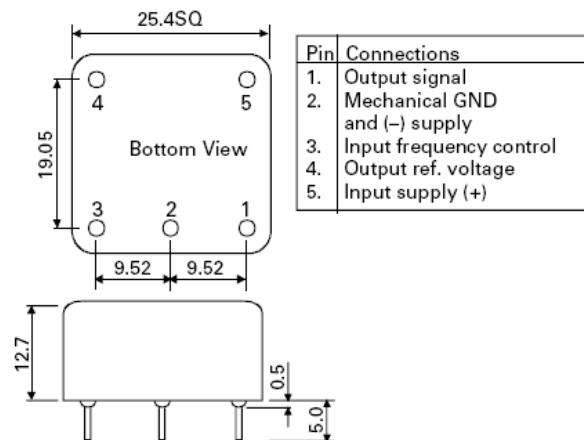
Documentation

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

Marking

- Manufacturer's Name: RAKON
- Part Number (for Series): STP 2208
- 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) -YYWW

Outline in mm. Package 25



Note: Pin 3 corresponds to EFC option and pin 4 to Reference Voltage (+4V)

SEMITECH

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