

PRECISION LOW G-SENSITIVITY OCXO MV207

Features:

- Low G - sensitivity up to: $0.5 \times 10^{-9} / g$
- Long term stability up to $\pm 2 \times 10^{-8} / \text{year}$
- High stability vs. temperature: up to $\pm 7.5 \times 10^{-10}$
- Power supply 5V and 12V
- Package height - down to 12.7 mm
- Frequency range: 5.0 – 20.0 MHz
- Low phase noise option

| Power supply | Output | Package type | |
|--------------|---------|---------------|-------|
| 12V | SIN | 36x27x16 mm | B16 |
| 5V | HCMOS** | 36x27x12.7 mm | B12.7 |

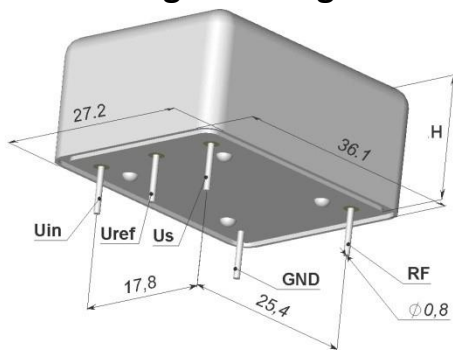
ORDERING GUIDE: MV207-C 3 F -12V - SIN - B12.7 - LN - 10.0 MHz

| Availability of certain stability vs. operating temperature range (for 10 MHz) | | $\pm 5 \times 10^{-9}$ | $\pm 3 \times 10^{-9}$ | $\pm 2 \times 10^{-9}$ | $\pm 1 \times 10^{-9}$ | $\pm 7.5 \times 10^{-10}$ |
|--|--------------|------------------------|------------------------|------------------------|------------------------|---------------------------|
| | | 5 | 3 | 2 | 1 | 075 |
| A | 0...+55 °C | A | A | A | A | A |
| B | -10...+60 °C | A | A | A | A | C |
| C | -20...+70 °C | A | A | A | A | NA |
| D | -40...+70 °C | A | A | A | A | NA |
| EX | -40...+85 °C | A | A | C | C | NA |

| Availability of certain aging values for certain frequencies | | Standard frequencies | | | | | |
|--|--------------------------------------|----------------------|----------|----------|----------|------------|----------|
| | | 5.0 MHz | 10.0 MHz | 12.8 MHz | 13.0 MHz | 16.384 MHz | 20.0 MHz |
| H | $\pm 2 \times 10^{-7} / \text{year}$ | NA | NA | NA | NA | A | A |
| G | $\pm 1 \times 10^{-7} / \text{year}$ | A | A | A | A | A | C |
| F | $\pm 5 \times 10^{-8} / \text{year}$ | A | A | A | A | C | NA |
| E | $\pm 3 \times 10^{-8} / \text{year}$ | A | A | A | C | NA | NA |
| D | $\pm 2 \times 10^{-8} / \text{year}$ | A | A | C | NA | NA | NA |

A – available, NA – not available, C – consult factory

Package drawings:



For "H" definition please see package type

| Phase noise, dBc/Hz, for 10MHz | - | LN | |
|--------------------------------|-------|---------------|--|
| | | For 12V (Sin) | |
| 1 Hz | <-95 | <-100 | |
| 10 Hz | <-125 | <-130 | |
| 100 Hz | <-145 | <-153 | |
| 1000 Hz | <-150 | <-158 | |
| 10000 Hz | <-155 | <-160 | |

| | | |
|---|--|------------------|
| Short term stability (Allan deviation) per 1 sec, for 10 MHz | $< 5 \times 10^{-12}$ | |
| Optional | $< 2 \times 10^{-12}$ | |
| G-sensitivity (in frequency range 0-500 Hz) Optional | $< 1.5 \times 10^{-9} / g$ $< 1 \times 10^{-9} / g$ $< 0.5 \times 10^{-9} / g$ | |
| Frequency stability vs. load changes ($\pm 5\%$) | $< \pm 5 \times 10^{-10}$ | |
| Frequency stability vs. power supply changes ($\pm 5\%$) | $< \pm 5 \times 10^{-10}$ | |
| Warm-up time within accuracy of $< \pm 2 \times 10^{-8}$ @ 25°C | < 5 min | |
| Power supply (Us) | 12V $\pm 5\%$ | 5V $\pm 5\%$ |
| Steady state current consumption @ +25°C (for 10 MHz) | < 150 mA | < 400 mA |
| Peak current consumption during warm-up * | < 400 mA | < 1000 mA |
| Frequency pulling range (for 10 MHz) | $> \pm 4.0 \times 10^{-7}$ | |
| Control voltage range (Uin) | 0...5 V | 0...4.5V |
| Reference voltage (Uref) | +5 V | +4.5 V |
| Output | HCMOS** | |
| Level | «0» | < 0.5 V |
| | «1» | > 4.0 V |
| Load | 10 kOhm/30 pF | 50 Ohm $\pm 5\%$ |
| Harmonics | > 30 dBc | |
| | SIN | |
| | > 300 mV RMS | |

| | |
|----------------------------------|--------------|
| Vibrations: | |
| Frequency range | 10-500 Hz |
| Acceleration | 5 g |
| Shock: | |
| Acceleration | 75 g |
| Duration | 3ms ± 1 |
| Humidity @ 25 °C | 98% |
| Storage temperature range | -55...+85 °C |

* - for the oscillators with the lower operating temperatures $> -20^\circ$.

** only for package height 16 mm

Additional notes:

- For non standard operating temperature ranges please use the following two letters designations (first letter for the lower limit, second letter for the upper limit), °C:

| A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R | S | T | U | W | X |
|-----|-----|-----|-----|-----|-----|-----|-----|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| -60 | -55 | -50 | -45 | -40 | -30 | -20 | -10 | 0 | +10 | +30 | +40 | +45 | +50 | +55 | +60 | +65 | +70 | +75 | +80 | +85 |



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