

ULTRA HIGH PERFORMANCE OCXO WITH LOW G-SENSITIVITY MV272

Features:

- Standard frequencies: 5.0; 10.0 MHz
- High stability vs. temperature: up to $\pm 1 \times 10^{-9}$
- Long term stability up to $\pm 2 \times 10^{-8}$ /year
- Low G-sensitivity
- ON/OFF function
- Low phase noise options

| G-sensitivity (in frequency range 0-500 Hz) | |
|---|--|
| - | Not specified |
| 1 | $< 1.0 \times 10^{-9}/g$ |
| 2 | $< 1.5 \times 10^{-9}/g$ |
| 3 | $< 0.5 \times 10^{-9}/g$ (consult factory) |

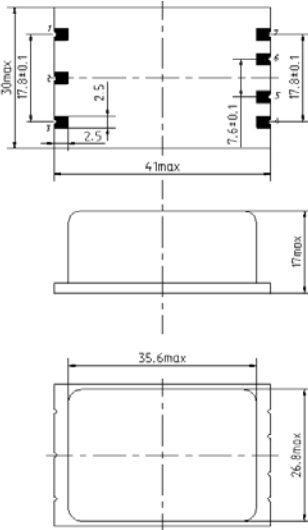
ORDERING GUIDE: MV272-C 3 F-ULN-10.0MHz-2-LN

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

A – available, C – consult factory

| Availability of certain aging values for certain frequencies | | Standard frequencies | |
|--|-------------------------------|----------------------|----------|
| | | 5.0 MHz | 10.0 MHz |
| F | $\pm 5 \times 10^{-8}$ / year | A | A |
| E | $\pm 3 \times 10^{-8}$ / year | A | A |
| D | $\pm 2 \times 10^{-8}$ / year | A | A |

Package drawings:



| Pin | Designation |
|-----|-------------|
| 1 | GND |
| 2 | NC |
| 3 | RF |
| 4 | Us |
| 5 | ON OFF |
| 6 | U in |
| 7 | U ref |

Not for reflow soldering

| | |
|----------------------------------|-------------|
| Vibrations: | |
| Frequency range | 10-500 Hz |
| Option | 10-2000 Hz |
| Acceleration | 10 g |
| Shock: | |
| Acceleration | 100 g ±3ms |
| Humidity @ 25 °C | 98% |
| Storage temperature range | -40...+85°C |

| Phase noise, dBc/Hz, for 10 MHz | - | LN | ULN* |
|---------------------------------|-------|-------|-------|
| 1 Hz | <-100 | <-105 | <-110 |
| 10 Hz | <-130 | <-135 | <-140 |
| 100 Hz | <-155 | <-155 | <-157 |
| 1000 Hz | <-159 | <-160 | <-161 |
| 10000 Hz | <-160 | <-161 | <-162 |

* measured values

| | |
|--|---|
| Short term stability (Allan deviation) per 1 sec, for 10 MHz: LA option ULA option | < 3×10^{-12} < 2×10^{-12} < 1×10^{-12} |
| Frequency stability vs. load changes ($\pm 5\%$) Optional | < $\pm 5 \times 10^{-10}$ < $\pm 2 \times 10^{-10}$ |
| Frequency stability vs. power supply changes ($\pm 5\%$) Optional | < $\pm 5 \times 10^{-10}$ < $\pm 2 \times 10^{-10}$ |
| Warm-up time within accuracy of $< \pm 2 \times 10^{-8}$ @ 25°C | <5 min |
| Power supply (Us) Option | 12V±5% 10.6...12.6V |
| Steady state current consumption @ +25°C (for 10 MHz) | <150 mA |
| Peak current consumption during warm-up ** | <400 mA |
| Frequency pulling range (for 10 MHz) | $> \pm 4.0 \times 10^{-7}$ |
| Control voltage range (Uin) | 0...5 V |
| Reference voltage (Uref) | +5 V |
| Output | SIN |
| Level | >400 mV |
| Load | 50 Ohm±5% |
| Harmonics | >30 dBc |

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

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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