

# MINIATURE HIGH FREQUENCY LOW PHASE NOISE VOLTAGE CONTROLLED CRYSTAL OSCILLATOR MV217

## Features:

- Small package size 20x20x10 mm
- Frequency range: 80.0 – 170.0 MHz
- Low Phase Noise

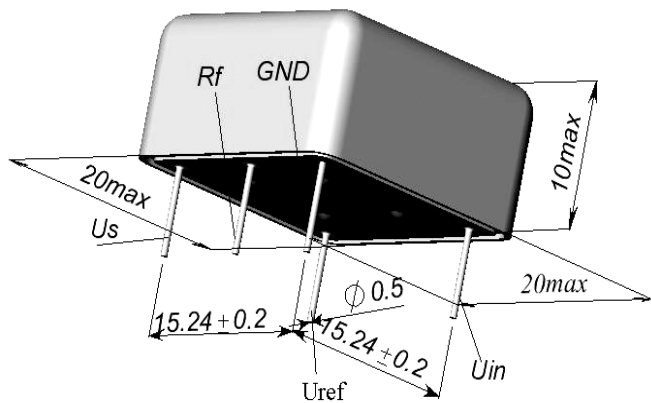
## ORDERING GUIDE: MV217-A 8000 - 2 - 100.0 MHz

| Availability of certain stability vs. operating temperature |              | $\pm 10 \times 10^{-6}$ | $\pm 8 \times 10^{-6}$ |
|-------------------------------------------------------------|--------------|-------------------------|------------------------|
|                                                             |              | 10000                   | 8000                   |
| A                                                           | 0...+55 °C   | A                       | A                      |
| B                                                           | -10...+60 °C | A                       | A                      |

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

For other temperature ranges see designation at the end of Data Sheet.

## Package drawing:



Frequency range: 80-170.0 MHz

| Phase noise, dBc/Hz (for 100 MHz) |      |      |      |      |
|-----------------------------------|------|------|------|------|
|                                   | 1    | 2    | 3    | 4    |
| 100 Hz                            | -95  | -105 | -110 | -125 |
| 1 kHz                             | -125 | -130 | -135 | -140 |
| 10 kHz                            | -140 | -145 | -150 | -155 |
| 100 kHz-1MHz                      | -155 | -160 | -160 | -162 |

|                                                      |                       |
|------------------------------------------------------|-----------------------|
| Long term stability (aging) per 1 <sup>st</sup> year | <±2x10 <sup>-6</sup>  |
| Long term stability (aging) per 10 years             | <±1x10 <sup>-6</sup>  |
| Frequency stability vs. power supply changes by ±5%  | <±2x10 <sup>-6</sup>  |
| Frequency stability vs. load changes by ±10%         | <±5x10 <sup>-7</sup>  |
| Power supply (Us)                                    | 5V±5%                 |
| Current consumption                                  | < 30 mA               |
| Output                                               | SIN                   |
| Load                                                 | 50 Ohm                |
| Level                                                | >300 mV               |
| With external voltage range (Uin)                    | 0...+4 V              |
| Frequency pulling range                              | >±22x10 <sup>-6</sup> |
| Reference voltage output (Uref)                      | + 4 V                 |
| Harmonic suppression                                 | >20 dBc               |

|                 |          |
|-----------------|----------|
| Vibrations:     |          |
| Frequency range | 5-300 Hz |
| Acceleration    | 5g       |

|                           |              |
|---------------------------|--------------|
| Shock:                    |              |
| Acceleration              | 15 g         |
| Duration                  | 6 ms         |
| Storage temperature range | -60...+90 °C |

## 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 |