

# SMALL SIZE ULTRA PRECISION TCXO WITH OCXO STABILITY MV202

## Features:

- Frequency range: 9.8304 – 20.MHz
- Standard frequencies: 12.288; 12.8 MHz
- Low current consumption: < 14 mA
- 5V Power supply
- Stability vs. temperature: up to  $\pm 1.5 \times 10^{-7}$
- Aging: up to  $\pm 1.5 \times 10^{-7}$ /year

Phase noise, dBc/Hz	S2	S1
10 Hz	-	<-90
100 Hz	<-110	<-120
1000 Hz	<-130	<-140
10000 Hz	<-140	<-145

## ORDERING GUIDE: MV202-B 300 H-12.8 MHz-S1

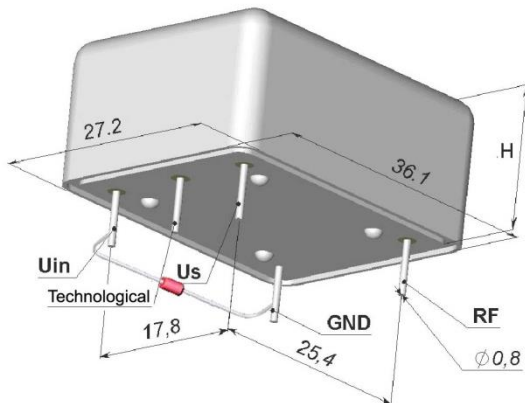
Availability of certain stability vs. operating temperature range		$\pm 5 \times 10^{-7}$	$\pm 3 \times 10^{-7}$	$\pm 2 \times 10^{-7}$	$\pm 1.5 \times 10^{-7}$
		500	300	200	150
A	0...+55°C	A	A	A	C
B	-10...+60°C	A	A	A	C
C	-20...+70°C	A	A	A	C
D	-40...+70°C	A	A	C	C

A – available, C – consult factory

Availability of certain aging values for certain frequencies			Standard frequencies	
			10.0 MHz	12.8 MHz
J	$\pm 5 \times 10^{-7}$ /year	$\pm 5 \times 10^{-9}$ /day	A	A
I	$\pm 3 \times 10^{-7}$ /year	$\pm 3 \times 10^{-9}$ /day	A	A
H	$\pm 2 \times 10^{-7}$ /year	$\pm 2 \times 10^{-9}$ /day	A	C
G	$\pm 1.5 \times 10^{-7}$ /year	$\pm 1.5 \times 10^{-9}$ /day	C	NA

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

## Package drawing:



H=12.7 mm

Pins Uin and GND are connected by technological resistor (18±6 kOhm) to adjust the frequency. This resistor can be removed in time of installation of the oscillator to an electronic device providing the same resistance between the pins Uin and GND.

## 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

Frequency stability vs. power supply changes	< $\pm 2 \times 10^{-8}$
Frequency stability vs. load changes	< $\pm 5 \times 10^{-8}$
Power supply (Us)	5V±10%
Steady state current consumption @ 25°C	< 14 mA
Output	SIN
Level	> 250 mV RMS
Load	50 Ohm ±5%
Harmonic suppression	> 20 dB
Warm-up time within accuracy of < $\pm 5 \times 10^{-7}$	< 2 s
Frequency pulling range	> $\pm 2,0 \times 10^{-6}$

## Mechanical characteristics

Vibrations:	
Frequency range	10-500 Hz
Acceleration	6 g
Shock:	
Acceleration	500 g/ (0,2...2) ms
Duration	100 g/ (1...5) ms



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Due to continuous development and improvement Morion reserves the right to modify design or specifications of its products without prior notice. Revision 2. April 2013