

MINIATURE PRECISION OCXO MV197

Features:

- Package height from 16 mm, down to 10 mm
- High stability vs. temperature: up to $\pm 5 \times 10^{-10}$
- Long term stability up to $\pm 2 \times 10^{-8}$ /year
- Low phase noise option
- Fast warm-up time up to 1 min
- Available as RoHS
- Frequency range: 8.192 – 20.0 MHz

Power supply	Output	Package type	
12V	SIN	36x27x16 mm	B16
5V	HCMOS	36x27x12.7 mm	B12.7
		36x27x10 mm	B10

ORDERING GUIDE: MV197- C 3 F - 12V - SIN - B12.7 - LN - 10.0 MHz

Availability of certain stability vs. operating temperature range (for 10 MHz)		$\pm 5 \times 10^{-9}$	$\pm 3 \times 10^{-9}$	$\pm 2 \times 10^{-9}$	$\pm 1 \times 10^{-9}$	$\pm 7.5 \times 10^{-10}$	$\pm 5 \times 10^{-10}$	$\pm 3 \times 10^{-10}$
		5	3	2	1	075	05	03
A	0...+55 °C	A	A	A	A	A	A	A
B	-10...+60 °C	A	A	A	A	A	A	C
C	-20...+70 °C	A	A	A	A	A*	A*	N/A
D	-40...+70 °C	A	A	A	A	A*	A*	N/A
EX	-40...+85 °C	A	A	A	A	A*	C	N/A

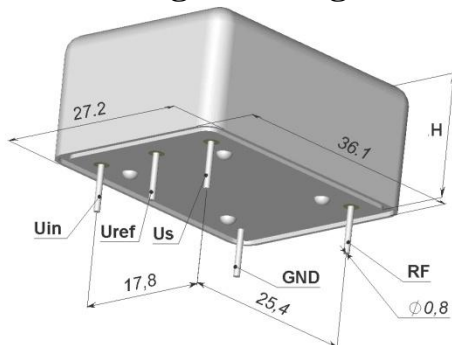
Availability of certain aging values for certain frequencies		Standard frequencies				
		10.0 MHz	12.8 MHz	13.0 MHz	16.384 MHz	20.0 MHz
H	$\pm 2 \times 10^{-7}$ /year	A	A	A	A	A
G	$\pm 1 \times 10^{-7}$ /year	A	A	A	A	C
F	$\pm 5 \times 10^{-8}$ /year	A	A	A	C	NA
E	$\pm 3 \times 10^{-8}$ /year	A	C	C	NA	NA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

* - "C" for B10 package.

A – available, NA – not available, C – consult factory
For other temperature ranges see designation at the end of Data Sheet.

* - only for B16 package

Package drawings:



For "H" definition please see package type

Phase noise, dBc/Hz, for 10MHz		LN	ULNF	ULN	ULN1 Preliminary
		For 12V, SIN			
1 Hz	<-95	<-100	<-100	<-103	<-105
10 Hz	<-125	<-130	<-130	<-133	<-135
100 Hz	<-145	<-153	<-155	<-155	<-155
1000 Hz	<-150	<-158	<-160	<-160	<-160
10000 Hz	<-155	<-160	<-165	<-161	<-161

Short term stability (Allan deviation) per 1 sec, for 10 MHz	$< 5 \times 10^{-12}$
Optional*	$< 2 \times 10^{-12}$
Frequency stability vs. load changes ($\pm 5\%$)	$< \pm 5 \times 10^{-10}$
Optional*	$< \pm 2 \times 10^{-10}$
Frequency stability vs. power supply changes ($\pm 5\%$)	$< \pm 5 \times 10^{-10}$
Optional*	$< \pm 2 \times 10^{-10}$
Warm-up time within accuracy of $< \pm 2 \times 10^{-8}$ @ 25°C	<3 min
Optional*, within accuracy of $< \pm 1 \times 10^{-7}$ @ 25°C	<1 min

Vibrations:	
Frequency range	10-200 Hz
Acceleration	5 g
Shock:	
Acceleration	75 g
Duration	3±1 ms
Humidity @ 25 °C	98%
Storage temperature range	-55...+85 °C

* Available on request

Additional notes:

- Start-up time < 100 mSec – optional.
- Please consult factory for daily aging values. Normally typical correspondence of daily to aging per year is as following: $\pm 1 \times 10^{-7}$ /year – $\pm 1 \times 10^{-9}$ /day; $\pm 5 \times 10^{-8}$ /year – $\pm 5 \times 10^{-10}$ /day; $\pm 3 \times 10^{-8}$ /year – $\pm 3 \times 10^{-10}$ /day
- Please mention RoHS requirement (if any) while requesting for quote or while placing PO.
- 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