

LOW PROFILE PRECISION OCXO MV201

Features:

- High stability vs. temperature: up to $\pm 3 \times 10^{-10}$
- Package height: from 16 mm down to 12.7 mm
- Power supply: 5V or 12V
- Replacement of MV62 OCXO
- Frequency range: 10.0 – 40.0 MHz

Power supply		Output		Package type	
5V	12V	SIN	HCMOS	51x41x12.7 mm	Y12.7
				51x41x16 mm	Y16
				51x41x19 mm	Y19

ORDERING GUIDE: MV201-B 1 E-12V-SIN-Y16-10.0MHz-LN

Availability of certain stability vs. operating temperature range (for 10 MHz, 12 V)		$\pm 5 \times 10^{-9}$	$\pm 3 \times 10^{-9}$	$\pm 2 \times 10^{-9}$	$\pm 1 \times 10^{-9}$	$\pm 7.5 \times 10^{-10}$	$\pm 5 \times 10^{-10}$	$\pm 3 \times 10^{-10}$
A	0...+55°C	A	A	A	A	A	A	A
B	-10...+60°C	A	A	A	A	A	A	A
C	-20...+70°C	A	A	A	A	A	A	C
D	-40...+70°C	A	A	A	A	A	A	C
EX	-40...+85°C	A	A	A	A	A	A	C

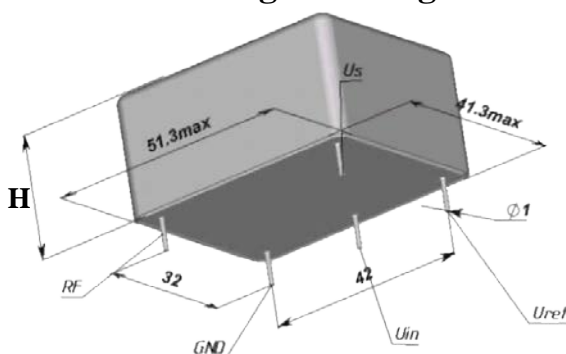
A – available, NA – not available, C – consult factory
For other temperature ranges see designation at the end of Data Sheet.

Availability of certain aging values for certain frequencies		Standard frequencies					
H	$\pm 2 \times 10^{-7}$ /year	8.192 MHz (8.192xk) MHz	10.0 MHz (10.0xk) MHz	12.8 MHz (12.8xk) MHz	13.0 MHz (13.0xk) MHz	16.384 MHz (16.384xk) MHz	20.0 MHz (20.0xk) MHz
G	$\pm 1 \times 10^{-7}$ /year	A	NA	NA	A	A	A
F	$\pm 5 \times 10^{-8}$ /year	A	A	A	A	C	NA
E	$\pm 3 \times 10^{-8}$ /year	A	A	A	C	NA	NA
D	$\pm 2 \times 10^{-8}$ /year	A	A	C	NA	NA	NA

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

Phase noise, dBc/Hz, 10 MHz	-	LN	ULN
		For 12 V, SIN	
1 Hz	<-95	<-100	<105
10 Hz	<-125	<-130	<-135
100 Hz	<-145	<-153	<-155
1000 Hz	<-150	<-158	<-158
10000 Hz	<-155	<-160	<-160

Package drawing:



H=19 mm for Y19; H=16 mm for Y16;
H=12.7 mm for Y12.7.

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

Short term stability (Allan deviation) per 1 sec (for 10MHz)	$< 5 \times 10^{-12}$; opt. $< 2 \times 10^{-12}$	
Frequency stability vs. load changes	$< \pm 5 \times 10^{-10}$; opt. $< \pm 2 \times 10^{-10}$	
Frequency stability vs. power supply changes	$< \pm 5 \times 10^{-10}$; opt. $< \pm 2 \times 10^{-10}$	
Warm-up time with accuracy of $< \pm 2 \times 10^{-8}$ @ 25°C	<3 min	
Power supply (Us)	12V±5%	5V±5%
Steady state current consumption @ 25°C	<200mA	<500mA
Peak current consumption during warm-up (for "D" temp. range)	<500mA	<1200mA
Frequency pulling range (for 10 MHz)	$> \pm 4 \times 10^{-7}$	
with external voltage range (Uin)	0...5 V	0...4.5 V
with external potentiometer	20 kOhm	
Reference voltage (Uref)	+5 V	+4.5 V

Output	HCMOS	SIN
Level	<0.5V... >4.0V	>300 mV RMS (9±0.5dBm - optional for 12V power supply)
Load	10kOhm/30pF	50 Ohm±5%
Rise/Fall time	<6 ns (<3 ns optional)	-
Harmonic suppression	-	>30dBc (>50dBc optional)

Additional notes:

- Please consult factory for daily aging values. Normally typical correspondence of daily aging per day 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