

PRECISION LOW PHASE NOISE OCXO MV341

Features:

- Standard frequency: 5.0 and 10.0 MHz
- Ultra low phase noise level close to the carrier
- Short term stability (Allan deviation) per 1 sec: up to 1.5×10^{-13}
- Package size: 50.8x50.8x16 mm
- High stability vs. temperature: up to $\pm 1 \times 10^{-9}$
- High long term stability: up to $\pm 1 \times 10^{-8}$ /year
- Power supply: 12 V
- Available as RoHS

ORDERING GUIDE: MV341-C 2 D-10.0M-LN-5E-13

Availability of certain stability vs. operating temperature range (10 MHz)		$\pm 5 \times 10^{-9}$	$\pm 3 \times 10^{-9}$	$\pm 2 \times 10^{-9}$	$\pm 1 \times 10^{-9}$
		5	3	2	1
A	0...+55°C	A	A	A	A
B	-10...+60°C	A	A	A	A
C	-20...+70°C	A	A	A	C
D	-40...+70°C	A	A	A	C
EX	-40...+80°C	A	A	A	C

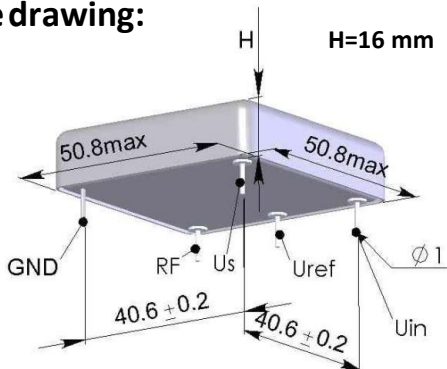
A – available, C – consult factory

Availability of certain aging values for certain frequencies		
F	$\pm 5 \times 10^{-8}$ /year	A
E	$\pm 3 \times 10^{-8}$ /year	A
D	$\pm 2 \times 10^{-8}$ /year	A
C	$\pm 1 \times 10^{-8}$ /year	C

Phase noise, dBc/Hz:	10.0 MHz			5.0 MHz		
	-	LN	ULN	-	LN	ULN*
0.1 Hz	<-80	<-85	<-89...-90	-	-	-
1 Hz	<-113	<-116	<-119...-120	<-115	<-120	<-124
10 Hz	<-143	\leq -144	\leq -145	<-144	<-146	<-147
100 Hz	<-154	<-157	<-157	<-155	<-157	<-158
1000 Hz	<-160	<-160	<-160	<-160	<-160	<-160
10000 Hz	<-163	<-165	<-167	<-165	<-165	<-165

* Consult factory

Package drawing:



Pin	OCXO's Pins Destinations
GND	Ground (case)
RF	RF output
Us	Power supply
Uref	Reference voltage output
Uin	Control voltage input

Short term stability (Allan deviation) per 1 sec:	
10.0 MHz	5.0 MHz
< 5×10^{-13} (5E-13)	< 2×10^{-12} (2E-12)
< 3×10^{-13} (3E-13)*	< 7×10^{-13} (7E-13)*
< 2×10^{-13} (2E-13)*	< 5×10^{-13} (5E-13)*
< 1.5×10^{-13} (1.5E-13)**	< 3×10^{-13} (3E-13)**

* Only for phase noise LN and ULN options

** Only for phase noise ULN option

Frequency stability vs. load changes ($\pm 5\%$)	< $\pm 5 \times 10^{-10}$
Frequency stability vs. power supply changes ($\pm 5\%$)	< $\pm 5 \times 10^{-10}$
Warm-up time within accuracy of $< \pm 2 \times 10^{-8}$ @ 25°C	< 5 min
Power supply (Us)	12 V \pm 5%
Steady state current consumption @ +25°C	< 250 mA
Peak current consumption during warm-up *	< 600 mA
Frequency pulling range	> $\pm 3 \times 10^{-7}$
Control voltage range (Uin)	0...5 V
Reference voltage (Uref)	+5 V
Output	SIN
Level	> 400 mV
Load	50 Ohm \pm 5%
Harmonics	> 30 dBc

* - for the oscillators with the lower operating temperatures >-20°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



1750 Meridian Ave. #5128, San Jose, CA 95150
Tel: 408-329-8108, Email: sales@morion-us.com

Due to continuous development and improvement Morion, Inc. reserves the right to modify design or specifications of its products without prior notice

Revision 14. September 2020