

PRECISION LOW PHASE NOISE MV341

Preliminary information

Features:

- Standard frequencies*: 5.0 MHz; 10.0 MHz
- 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
- 12 V power supply
- Ultra low phase noise level close to the carrier
- Short term stability (Allan deviation) per 1 sec - up to 2×10^{-13}
- Available as RoHS
- Oven alarm & oscillation ON/OFF function

Package type	
50.8x50.8x16 mm	Z16

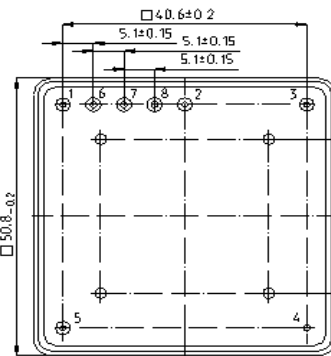
ORDERING GUIDE: MV341 - C 2 D - 10.0M - LN - 5E-13

Availability of certain stability vs. operating temperature range for 10 MHz		$\pm 5 \times 10^{-9}$	$\pm 3 \times 10^{-9}$	$\pm 2 \times 10^{-9}$	$\pm 1 \times 10^{-9}$
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...+85 °C	A	A	C	C

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

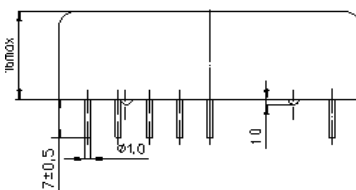
Availability of certain aging values for certain frequencies		5 MHz	10 MHz
F	$\pm 5 \times 10^{-8}$ /year	A	A
E	$\pm 3 \times 10^{-8}$ /year	A	A
D	$\pm 2 \times 10^{-8}$ /year	A	A
C	$\pm 1 \times 10^{-8}$ /year	A	C

Phase noise, dBc/Hz, for 10 MHz:	-	LN
1 Hz	<-113	<-116
10 Hz	<-143	<-146
100 Hz	<-154	<-157
1000 Hz	<-160	<-160
10000 Hz	<-160	<-160



Pin	OCXO's Pins Destinations
1	Control voltage input
2	Reference voltage output
3	RF output
4	Ground (case)
5	Supply voltage
6	Not connected
7	On/Off
8	Oven alarm

Short term stability (Allan deviation) per 1 sec:	< 5×10^{-13} (5E-13) option (only for LN) < 3×10^{-13} (3E-13) option (only for LN) < 2×10^{-13} (2E-13)
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 $\leq \pm 2 \times 10^{-8}$ @ 25°C	< 5 min
Power supply (Us)	12 V $\pm 5\%$
Steady state current consumption @ +25°C	< 230 mA
Peak current consumption during warm-up**	< 550 mA
Frequency pulling range	> $\pm 3 \times 10^{-7}$
Control voltage range (Uin)	0...5 V
Reference voltage (Uref)	+5 V



Vibrations:	
Frequency range	10-500 Hz
Acceleration	5 g
Shock:	75 g/ 3±1 ms
Humidity @ 25 °C	98%
Storage temperature range	-55...+85 °C

Output	SIN
Level	>500 mV
Load	50 Ohm $\pm 5\%$
Harmonics	> 30 dB

* – consult factory for optional frequencies 5.115 MHz; 10.230 MHz; etc.

** - 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

 **MORION, Inc.**

13a, KIMa Ave., St.Petersburg, 199155, RUSSIA. <http://www.morion.com.ru>
Tel:+7-812-350-9243; 332-5032. Fax:+7-812-350-7290. e-mail: sale@morion.com.ru

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

Revision 1. July 2014