

PRECISION LOW PHASE NOISE OCXO MV341

Features:

- Standard frequencies: 5.0 and 10.0 MHz
- Ultra low phase noise level
- 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

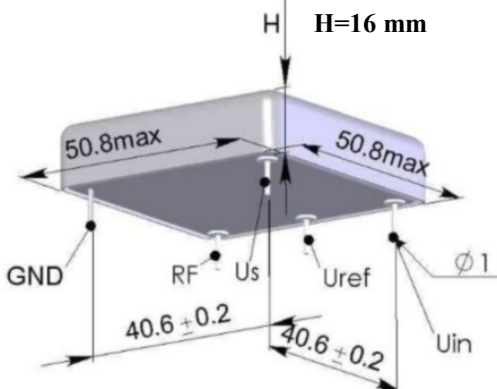
ORDERING GUIDE: MV341-C 2 D-10.0MHz-LN-5E-13

Availability of certain stability vs. operating temperature range (10.0 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
EW	-40...+80°C	A	A	C	C

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

A – available, C – consult factory

Package drawing:



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

Output	SIN
Level	>400 mV
Load	50 Ohm \pm 5%
Harmonics	> 30 dBc

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

Phase noise, dBc/Hz:	10.0 MHz					
	-	F	LN	LNF	ULN	ULNF
0.1 Hz	<-80		<-85		\leq -89...-90	
1 Hz	<-113		<-116		\leq -119...-120	
10 Hz	<-143		\leq -144		\leq -145	
100 Hz	<-154		<-157		\leq -157	
1000 Hz	<-160	<-170	<-160	<-170	<-160	<-170
10000 Hz	<-163	<-180	<-165	<-180	<-167	<-180

Phase noise, dBc/Hz:	5.0 MHz		
	-	LN	ULN*
0.1 Hz	-	-	-
1 Hz	<-115	<-120	<-124
10 Hz	\leq -144	\leq -146	\leq -147
100 Hz	<-155	<-157	<-158
1000 Hz	<-160	<-160	<-160
10000 Hz	<-165	<-165	<-165

* consult factory

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 (LNF and ULNF for 10.0 MHz) options

*** only for phase noise ULN (ULNF for 10.0 MHz) 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 $\leq \pm 2 \times 10^{-8}$ @ 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

**** - for the oscillators with the lower operating temperatures $> -20^\circ\text{C}$

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