

MINIATURE HIGH FREQUENCY PRECISION LOW PHASE NOISE OCXO MV317

Features:

- Small package size of 25x25x10.3 mm
- Ultra low phase noise: <-178 dBc/Hz @ 100 kHz offset
- Very short warm-up time: less than 2 minutes
- High stability vs. temperature: up to $\pm 5 \times 10^{-8}$
- Power supply: 12V or 5V

ORDERING GUIDE: MV317-B 300 J-12V-3

Availability of certain stability vs. operating temperature range		$\pm 5 \times 10^{-7}$	$\pm 3 \times 10^{-7}$	$\pm 1 \times 10^{-7}$	$\pm 7.5 \times 10^{-8}$	$\pm 5 \times 10^{-8}$
		500	300	100	75	50
A	0...+55°C	A	A	A	A	A
B	-10...+60°C	A	A	A	A	C
C	-20...+70°C	A	A	A	C	NA
D	-40...+70°C	A	A	C	NA	NA
E	-40...+85°C	A	C	NA	NA	NA

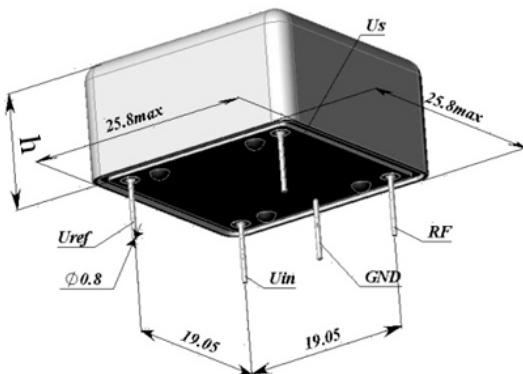
A – available, NA – not available, C – consult factory

For other temperature ranges see designation at the end of Data Sheet.

Phase noise, dBc/Hz, for 100.0 MHz				
Option	2	3	4	5
For power supply 12 V				
10 Hz	<-95	<-98	<-100	<-102
100 Hz	<-127	<-132	<-135	<-137
1000 Hz	<-156	<-157	<-160	<-164
10000 Hz	<-172	<-174	<-174	<-176
100000 Hz	<-176	<-177	<-176	<-178
For power supply 5 V				
10 Hz	<-95	<-98	<-100	-
100 Hz	<-127	<-132	<-133	-
1000 Hz	<-156	<-157	<-160	-
10000 Hz	<-172	<-172	<-172	-
100000 Hz	<-174	<-174	<-175	-

Aging	
$\pm 5 \times 10^{-7}$ /year	J
$\pm 3 \times 10^{-7}$ /year	I
$\pm 2 \times 10^{-7}$ /year	H
$\pm 1 \times 10^{-7}$ /year	G

Package drawing:



h= 10.3 mm

Frequency stability vs. load changes	$< \pm 2 \times 10^{-8}$
Frequency stability vs. power supply changes	$< \pm 5 \times 10^{-8}$
Warm-up time within accuracy of $\pm 2 \times 10^{-7}$ @ 25°C	< 2 min.
Power supply (Us)	12V \pm 10% 5V \pm 10%
Steady state current consumption @ 25°C	< 120 mA < 250 mA
Peak current consumption during warm-up @ 25°C	< 300 mA < 600 mA
Reference voltage output (Uref)	+10...+11 V 4.5...4.8 V
with external control voltage range (Uin)	0...10 V 0...4.5 V
Frequency pulling range	$> \pm 2 \times 10^{-6}$
Output	SIN
Level	> 500 mV > 400 mV
Load	50 Ohm \pm 10%
Harmonics	> 25 dBc
Vibrations	10-500 Hz, 5g
Storage temperature range	-55...+80 °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