

# HIGH FREQUENCY LOW PHASE NOISE OCXO MV318

## Features:

- Frequency range: 60.0 – 120.0 MHz
- Ultra low phase noise: <-178 dBc/Hz @ 100 kHz offset
- High stability vs. temperature: up to  $\pm 5 \times 10^{-8}$
- Low profile – just 12.7 mm height
- Ideal for PLL, VSAT, Frequency synthesizers

Frequency range: 60.0 - 120.0 MHz

Standard frequencies:  
60.0; 80.0; 84.0; 100.0 MHz

## ORDERING GUIDE: MV318-B 300 J-3-100.0 MHz

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...+50°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
EX	-40...+85°C	A	C	NA	NA	NA

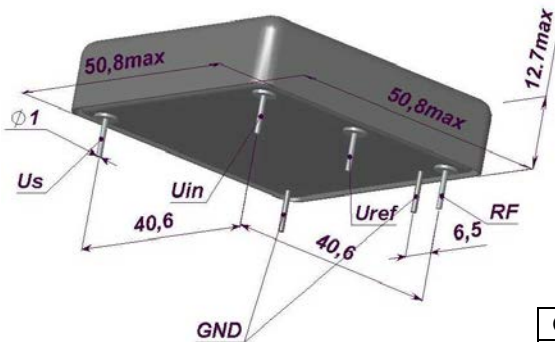
A – available, NA – not available, C – consult factory

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

Phase noise, dBc/Hz, for 100.0 MHz				
Option	1	2	3	4
10 Hz	<-95	<-97	<-97	<-100
100 Hz	<-127	<-128	<-128	<-133
1000 Hz	<-153	<-155	<-157	<-160
10000 Hz	<-172	<-173	<-175	<-176
100000 Hz	<-176	<-176	<-177	<-178

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

## Package drawing:



Frequency stability vs. load changes	< $\pm 5 \times 10^{-8}$
Frequency stability vs. power supply changes	< $\pm 5 \times 10^{-8}$
Warm-up time with accuracy of < $\pm 2 \times 10^{-7}$ at +25 °C	<3 min
Power supply (Us)	12V $\pm 5\%$
Steady state current consumption @ 25°C (still air)	<120 mA
Peak current consumption during warm-up	<300 mA
Frequency pulling range* with external control voltage range (Uin)	> $\pm 2 \times 10^{-6}$
Reference voltage (Uref)	+10...+11 V

\* sufficient to compensate aging during life time

Output	SIN
Level	> 600 mV RMS
Load	50 Ohm $\pm 10\%$
Harmonics & subharmonics	< -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

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