

PRECISION LOW PHASE NOISE OCXO MV289M

Preliminary information

Features:

- Standard frequency 5.0 MHz*
- High stability vs. temperature – up to $\pm 1 \times 10^{-9}$
- 12 V power supply
- Ultra low phase noise
- High short term stability (Allan deviation) per 1 sec – up to 1×10^{-13}
- High long term stability – up to $\pm 5 \times 10^{-9}$ /year

Package type	
50.8x50.8x19 mm	Z19
50.8x50.8x25 mm	Z25

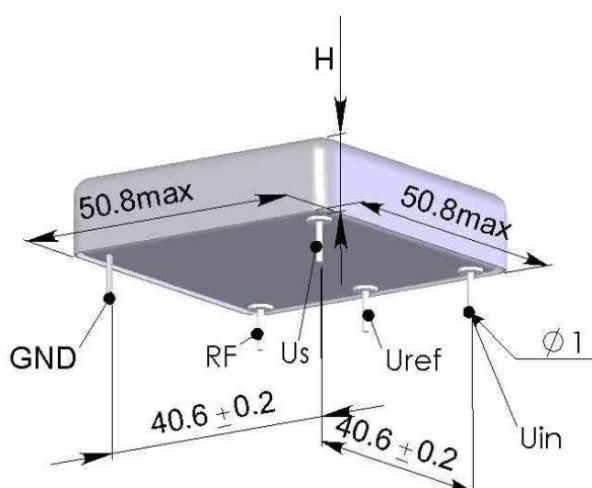
ORDERING GUIDE: MV289M – C 2 B – 5.0MHz – ULN– 2E-13 – Z19

Availability of certain stability vs. operating temperature range for 5.0 MHz		$\pm 3 \times 10^{-9}$	$\pm 2 \times 10^{-9}$	$\pm 1 \times 10^{-9}$
		3	2	1
A	0...+55 °C	A	A	A
B	-10...+60 °C	A	A	A
C	-20...+70 °C	A	A	C
D	-40...+70 °C	A	C	C
EX	-40...+85 °C	C	C	NA

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

Availability of certain aging values for certain frequencies	
E	$\pm 3 \times 10^{-8}$ /year
D	$\pm 2 \times 10^{-8}$ /year
C	$\pm 1 \times 10^{-8}$ /year
B	$\pm 5 \times 10^{-9}$ /year

Phase noise, dBc/Hz, for 5.0 MHz:	-	LN	ULN
1 Hz	<-115	<-120	<-125
10 Hz	<-145	<-148	<-148
100 Hz	<-150	<-155	<-155
1000 Hz	<-155	<-160	<-157
10000 Hz	<-155	<-161	<-157



H = 19 mm for Z19;

H = 25 mm for Z25.

Short term stability (Allan deviation) per 1 sec, for 5 MHz:	< 5×10^{-13} (5E-13) < 2×10^{-13} (2E-13) < 1×10^{-13} (1E-13)
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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	< 8 min
Power supply (Us)	12 V $\pm 5\%$
Steady state current consumption @ +25°C	< 200 mA
Peak current consumption during warm-up**	< 600 mA
Frequency pulling range	> $\pm 2 \times 10^{-7}$
Control voltage range (Uin)	0...5 V
Reference voltage (Uref)	+5 V

Vibrations:	
Frequency range	10-200 Hz
Acceleration	5 g
Shock:	75 g/ 3 $\pm$ 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; etc.

** - for oscillators with 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



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

Revision 1. August 2014