DOUBLE OVEN ULTRA PRECISION OCXO MV89

Features:

- ***Frequency range 4.096 - 10.0 MHz***
- ***Very high stability vs. temperature - up to ±5x10^{-11}***
- ***Very low aging - up to ±5x10^{-9}/year***
- ***Not sensitive for rapid changes of ambient temperature***
- ***Ideal for GPS, CDMA, 3G applications***

ORDERING GUIDE: MV89 – B 01 E – 10.0 MHz

Availability of certain stability vs. operating temperature range		±3x10^{-10}	±2x10^{-10}	±1x10^{-10}	±5x10^{-11}
		03	02	01	005
A	0…+55 °C	A	A	A	C
B	- 10…+60 °C	A	A	A	C
C	- 20…+70 °C	A	A	A	C
D	-40…+70 °C	A	A	C	NA

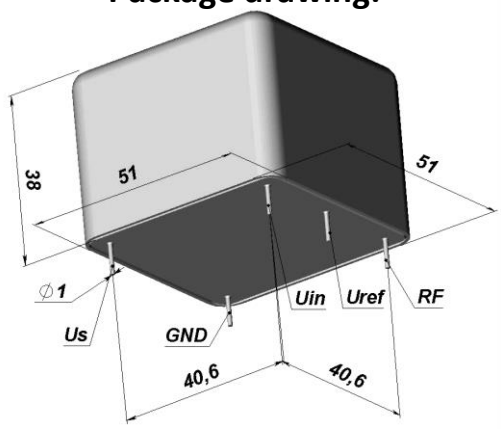
A – available, NA – not available, C – consult factory

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

Availability of certain aging values for certain frequencies		Standard frequencies			
		4.096 MHz	5.0 MHz	8.192 MHz	10.0 MHz
E	±3x10^{-8}/year	A	A	A	A
D	±2x10^{-8}/year	A	A	A	A
C	±1x10^{-8}/year	C	A	C	A
B	±5x10^{-9}/year	C	A	C	A

A – available NA – not available C – consult factory

Package drawing:



Mechanical characteristics:

Vibrations: Frequency range Acceleration	1-500 Hz 5g
Shock: Acceleration Duration	150 g 2±0.5 ms
Storage temperature range	-55…+80 °C

Short term stability (Allan deviation) per 1 s, typical	<2x10^{-12}
Frequency stability vs. load changes	<±1x10^{-10}
Frequency stability vs. power supply changes	<±1x10^{-10}
Warm-up time with accuracy of <±5x10^{-8}	<15 min
Power supply (Us)	12V±5%
Steady state current consumption @ 25°C (still air)	< 350 mA
Peak current consumption during warm-up @ 25°C	<1.5 A
Frequency pulling range	>±2.5x10^{-7}
with external control voltage range (Uin)	0…+5 V
Reference voltage (Uref)	+5V

Output	SIN
Level	+7 ±2 dBm
Load	50 Ohm±5%
Subharmonics (for 8.192, 10.0 MHz)	<-40 dBc
Harmonic suppression	>30dBc
Phase noise, typical (for 5 MHz)	
1 Hz	-105 dBc/Hz
10 Hz	-130 dBc/Hz
100 Hz	-145 dBc/Hz
1000 Hz	-150 dBc/Hz
10000 Hz	-155 dBc/Hz

ADDITIONAL NOTES:

- **Showed values of frequency stability vs. temperature usually are tested in Still Air test conditions. Please inform factory about different conditions in operation to provide appropriate tests.**
- **Please consult factory for daily aging values. Normally typical correspondence of daily aging per day to aging per year is as following: ±5x10^{-8}/year - ±5x10^{-10}/day; ±3x10^{-8}/year - ±3x10^{-10}/day; ±2x10^{-8}/year - ±2x10^{-10}/day; ±1x10^{-8}/year - ±1x10^{-10}/day.**
- **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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