

MINIATURE HIGH FREQUENCY PRECISION LOW PHASE NOISE OCXO MV354

Features:

- **Standard frequency: 100.0 MHz**
- **Small SMD package with size of 21x14x7.5 mm**
- **Ultra low phase noise: <-177...-178 dBc/Hz @ 100 kHz offset**
- **Very short warm-up time: less than 2 minutes**
- **High stability vs. temperature: up to $\pm 5 \times 10^{-8}$**

ORDERING GUIDE: MV354-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...+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

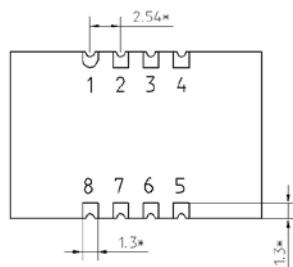
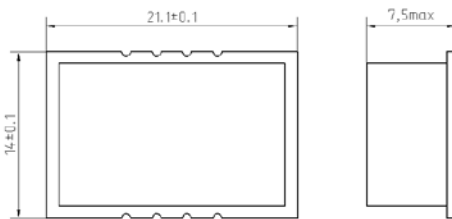
A – available, NA – not available, C – consult factory

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

Phase noise, dBc/Hz			
Option	1	2	3
10 Hz	<-97	<-100	<-100
100 Hz	<-130	<-132	<-135
1000 Hz	<-160	<-160	<-162
10000 Hz	<-173	<-174	<-176
100000 Hz	<-175	<-176	<-177...178

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

Package drawing:



Nº	Function
1	VCC
2	GND
3	GND
4	RF
5	Vc
6	GND
7	Vref
8	GND

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)	5V $\pm 10\%$
Steady state current consumption @ 25°C	< 250 mA
Peak current consumption during warm-up @ 25°C	< 450 mA
Frequency pulling range	> $\pm 2.5 \times 10^{-6}$
with external control voltage range (Uin)	0...4.5 V
Reference voltage output (Uref)	4.5...4.8 V

Output	SIN
Level	>600 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