

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

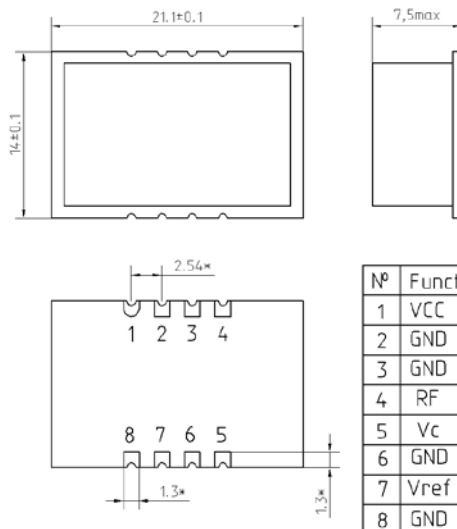
For other temperature ranges see designation at the end of Data Sheet.

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

* for Uin = 0...10 V (option 1) only

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:



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 $< 2 \times 10^{-7}$ @ 25°C	< 2 min.
Power supply (Us)	5V±5%
Steady state current consumption @ 25°C	< 250 mA
Peak current consumption during warm-up @ 25°C	< 500 mA
Frequency pulling range	$> \pm 2.5 \times 10^{-6}$
with external control voltage range (Uin)	0...10 V (Opt 1) 0...4.5 V (Opt 2)
Reference voltage output (Uref)	4.5...4.8 V

Output	SIN
Level	> 600 mV
Load	50 Ohm±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

