



Your dedicated source for crystal oscillators and filters.

Features

- High Stability vs. Temperature: up to $\pm 5 \times 10^{-10}$
- Long Term Stability upto $\pm 2 \times 10^{-8}$ /year
- Package Height Option: 19 mm (3/4")
- HCMOS and Sinewave Output
- +12V

Applications

- GPS
- CDMA
- 3G
- Base station

Specifications

Temperature Range	Temperature Stability Availability		Comments
	High	Higher	
0 to +55° C	$< \pm 5 \times 10^{-9}$	$< \pm 5 \times 10^{-10}$	
-10 to +60° C	$< \pm 5 \times 10^{-9}$	$< \pm 5 \times 10^{-10}$	
-20 to +70° C	$< \pm 5 \times 10^{-9}$	$< \pm 5 \times 10^{-10}$	
-40 to +70° C	$< \pm 5 \times 10^{-9}$	$< \pm 1 \times 10^{-9}$	Contact factory for $< \pm 5 \times 10^{-10}$

Temperature ranges from -60° C to +85° C available. Contact factory and see ordering designations at the end of this data sheet.

Standard Frequencies	Long Term Stability (Yearly Aging) Availability		Comments
	High	Higher	
5.0 MHz	$< \pm 5 \times 10^{-8}$	$< \pm 2 \times 10^{-8}$	
8.192 MHz	$< \pm 5 \times 10^{-8}$	$< \pm 3 \times 10^{-8}$	Contact factory for $< \pm 2 \times 10^{-8}$
10.0 MHz	$< \pm 5 \times 10^{-8}$	$< \pm 3 \times 10^{-8}$	

Contact factory for non-standard long term stability performance and see ordering designations at the end of this data sheet.

Specification	Short Term, Pulling & Pushing Stability			Comments
	Standard	Option	Option	
Short term stability per 1 sec.	$< \pm 5 \times 10^{-12}$	-	-	Allan deviation
Stability vs. Load ($\pm 5\%$)	$< \pm 3 \times 10^{-10}$	-	-	
Stability vs. power supply ($\pm 5\%$)	$< \pm 3 \times 10^{-10}$	-	-	
Warm-up time to w/ in $< \pm 5 \times 10^{-8}$	<5 minutes	-	-	@25° C

Specifications-Continued

Frequency Offset	Phase Noise (dBc/Hz)		Comments
	Sinewave	HCMOS	
1 Hz	< -100	< -97	Contact factory for lower phase noise
10 Hz	< -125	< -122	
100 Hz	< -145	< -142	
1 kHz	< -150	< -147	
10 kHz	< -155	< -150	

Contact factory for lower phase noise performance and see ordering designations at the end of this data sheet.

Output	Output Parameters	
	Sinewave	HCMOS
Level	> 225 mV (1,000 mV option)	"0" < 0.5V "1" > 5.0V
Load	50 Ohms \pm 5%	10K Ohms, 15 pF
Rise/Fall Time	-	-
Harmonics	> -30 dBc	-

Contact factory for SIN Level Option and HCMOS Rise/Fall times. See ordering designations at the end of this data sheet.

Power Supply & Voltage Control Parameters

Specification	12V \pm 5%
Steady state current @ 25 ^o C	< 180 mA
Peak warm-up current	< 500 mA
Frequency Adjust range	< $\pm 3 \times 10^{-7}$
Frequency Adjust Voltage (Uin)	0 to +5V
Slope	Positive
or with Potentiometer	20 kOhm
Reference Voltage (Uref)	+5V

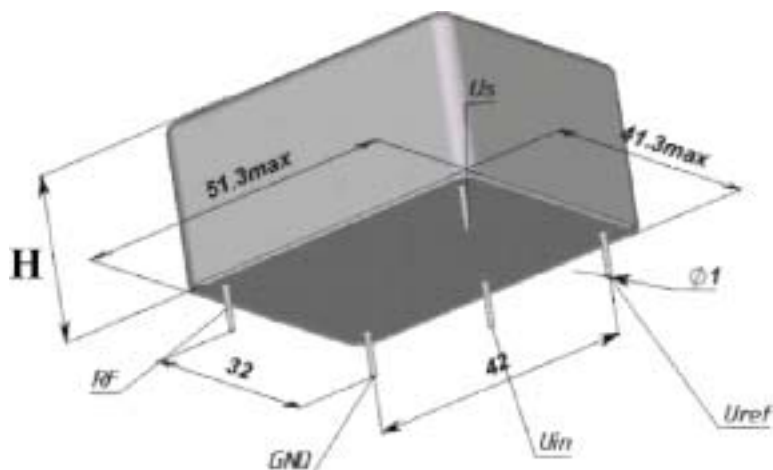
See ordering designations at the end of this data sheet.

Environmental Parameters

Specification	Conditions
Vibration Frequency	1-200 Hz
Vibration Acceleration	5 g
Shock Acceleration	100 g
Shock Duration	3 \pm 1 ms
Humidity	-
Storage Temperature	-55 to +85 ^o C
RoHs	Option

Contact factory for extended environmental conditions.

Outline Drawing



H=25 mm for Y; H=19 mm for Y19.

Pin	Value
Uref	Reference Voltage
Us	Power Supply
RF	RF Out
GND	Ground
Uin	Frequency Adjustment Voltage

Ordering Guide

Size	Package
51.3x41.3x25 mm	Y
51x41.3x19 mm	Y19

Output
Sinewave
HCMOS

MV62 - C 05 F - Y19 - SIN - 10.0 MHz

Availability of certain stability vs. operating temperature range.		$\pm 5 \times 10^{-9}$	$\pm 2 \times 10^{-9}$	$\pm 1 \times 10^{-9}$	$\pm 5 \times 10^{-10}$
		5	2	1	05
A	0 to +55° C	A	A	A	A
B	-10 to +60° C	A	A	A	A
C	-20 to +70° C	A	A	A	A
D	-40 to +70° C	A	A	A	C

A=Available, C=Contact factory, N=Not available

Availability of certain aging values for certain frequencies.		Standard Frequencies		
		5.0 MHz	8.192 MHz	10.0 MHz
F	$\pm 5 \times 10^{-8}$ /year	A	A	A
E	$\pm 3 \times 10^{-8}$ /year	A	A	A
D	$\pm 2 \times 10^{-8}$ /year	A	C	N

A=Available, C=Contact factory, N=Not available

Additional Notes:

- 1) Contact factory for daily aging values. General rule: $x10^{-x}$ /year = $x10^{-(x+2)}$ /day.
- 2) Advise RoHs requirement at Order.
- 3) Contact factory for non-standard temperature ranges.