

MV-OC919-2113D is a Oven Controlled Crystal Oscillator (OCXO) . This OCXO is a Low Noise, Dip package OCXO, CMOS output and comes in a 4pin Dip, Through Hole 20.7x13.1mm package. This device contains an internal voltage regulator resulting in excellent power supply rejection ratio.

The device is qualified to meet the JEDEC standard for Pb-Free assembly and compliant to the RoHS directive.

Electrical Performance

Parameter	Min	Typ	Max	Units
General				
Output Frequency	10		40	MHz
Operating Temperature		-10/+70 to -40/+85		°C
Package Size		20.7 x 13.1 x 11		mm
Frequency Stability				
Stability over Temp		±20 to ±5		ppb
Power Supply Stability (±5% Change)			±50	ppb
Aging / day			±5.0	ppb
Aging / year			±500	ppb
Aging - 10 years			±3000	ppb
Warm Up (5 Min) - Ref to Stab @ 1hr / 25°C			±10	ppb
G-Sensitivity			1.0	ppb/g
Supply				
Supply Voltage (Vdd)		+3.3 to +5.0		V
Supply Current (Warm Up) @ 3.3V			800	mA
Supply Current (Warm Up) @ 5.0V			400	mA
Power Consumption (Steady State @+25°C)			0.8	W
Tuning				
Electrical Frequency Control (EFC)		±5000		ppb
Slope		Positive		
Control Voltage to reach Pull Range	0	+2.5	5	V
Control Voltage Impedance	100			KΩ
Output				
Output Signal		CMOS		
Output Level - Logic Low			+0.4	V
Output Level - Logic High	+2.4			V
Output Load		15		pF
Spurious			-60	dBc
Duty Cycle	45	50	55	%
Phase Noise & Jitter				
Phase Noise: (10 MHz)				
10 Hz offset		-108	-105	dBc/Hz
100 Hz offset		-133	-130	dBc/Hz
1kHz offset		-143	-140	dBc/Hz
10kHz offset		-153	-150	dBc/Hz
10kHz offset		-153	-150	dBc/Hz

Notes:

- 1 Warm Up: Stability referenced to frequency after 1 hour of operation at 25°C.

Maximum Ratings

Storage Temp	-55°C to 105°C
Shock (MIL-STD-202, Method 213, Test Condition J)	30g, 11ms, half-sine (non-operating)
Vibration (MIL-STD-202, Method 201)	0.06" Total p-p, 10 to 55 Hz (non-operating)
Humidity (MIL-STD-202, Method 103, Test Condition A)	95% RH @ +40°C, non-condensing, 240 hours

Maximum Ratings Notes:

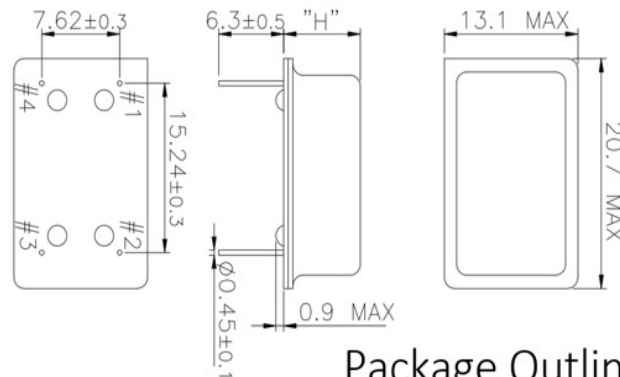
- 1 Stresses in excess of the absolute maximum ratings can permanently damage the device.
- 2 Exposure to absolute maximum ratings for extended periods may adversely affect device reliability.

Package Information

Pin #	Function
Pin 1	Vc = Control Voltage or NC
Pin 2	GND = Ground
Pin 3	OUT = Output
Pin 4	Vdd = Supply Voltage

Package and Assembly Notes:

- 1 H = 9.2 mm



Package Outline Drawing

Handling and Construction

Package Construction	4pin Dip, Through Hole
RoHS compliance	100% ROHS 6 compliant
Washable	yes
Moisture Sensitivity Level	MSL 1
ESD, Human Body Model	500V
ESD, Charge Device Model	500V

Ordering Information
MV-OC919-2113D -

OCXO, CMOS

20.7 x 13.1 x 11mm, 4 Pins

x x x Z

① ② ③ ④

- xxMxxxxxx

Frequency

① Voltage

A: 5.0 V

B: 3.3 V

② Temp Range

J: -10/+70 °C

H: -20/+70 °C

K: -40/+85 °C

③ Temp Stability

F: ±20 ppb

G: ±15 ppb

J: ±10 ppb

L: ±5 ppb

④ EFC

Z: ±5000 ppm

Part Number Configuration Notes:

- 1 Tightest temperature stability options available as at -20 to +70 °C. For tightest stability at wide temp ranges - please contact us.
- 2 Standard Frequencies: 10MHz, 12.8MHz, 19.2MHz, 20MHz, 26MHz, 38.88MHz. Others available but may require longer lead time