

MV-OC917-2522C is a Oven Controlled Crystal Oscillator (OCXO) . This OCXO is a Standard SMD OCXO, HCMOS output and comes in a 7pin SMD 25.4x22.1mm package.

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	5		40	MHz
Operating Temperature		-10/+70 to -40/+85		°C
Package Size		25.4 x 22.1 x 11		mm
Frequency Stability				
Stability over Temp		±20 to ±5		ppb
Power Supply Stability (±5% Change)			±0.5	ppb
Aging / day			±0.5	ppb
Aging / year			±50	ppb
Aging - 10 years			±300	ppb
Warm Up (180 sec) - Ref to Stab @ 1hr / 25°C			±50	ppb
Supply				
Supply Voltage (Vdd)		+3.3 to +5.0		V
Supply Current (Warm Up) @ 3.3V			1000	mA
Supply Current (Warm Up) @ 5.0V			500	mA
Power Consumption (Steady State @+25°C)			1.2	W
Tuning				
Electrical Frequency Control (EFC)		±500		ppb
Slope		Positive		
Control Voltage to reach Pull Range	0	Vref / 2	Vref	V
Vref - Reference Voltage (@3.3V)	2.7	2.8	2.9	V
Vref - Reference Voltage (@5.0V)	3.8	4.0	4.2	V
Control Voltage Impedance	100			KΩ
Output				
Output Signal		HCMOS		
Output Level - Logic Low			+0.5	V
Output Level - Logic High	+3.5			V
Output Load		15		pF
Spurious			-60	dBc
Duty Cycle	45	50	55	%
Phase Noise & Jitter				
Phase Noise: (10 MHz)				
1 Hz offset		-95	-90	dBc/Hz
10 Hz offset		-125	-120	dBc/Hz
100 Hz offset		-146	-143	dBc/Hz
1kHz offset		-155	-152	dBc/Hz
10kHz offset		-158	-155	dBc/Hz
100kHz offset		-158	-155	dBc/Hz

Notes:

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

Maximum Ratings

Storage Temp	-45°C to 95°C
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Maximum Ratings Notes:

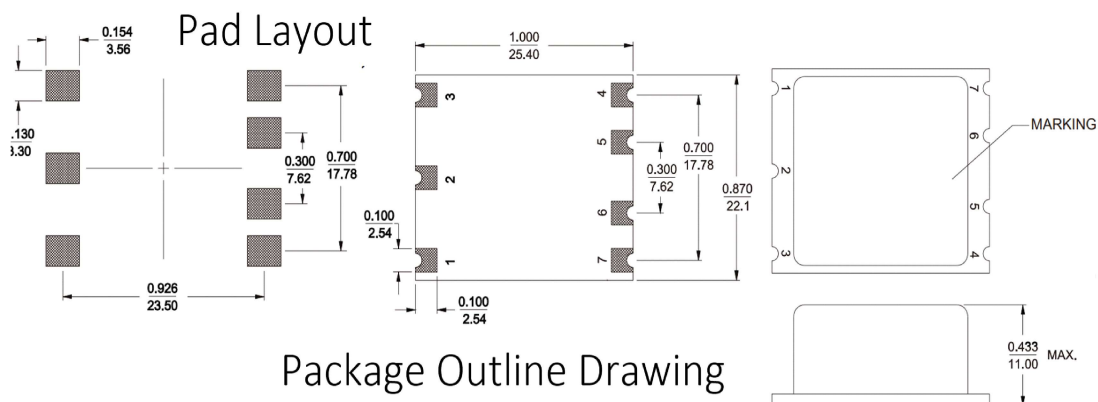
- 1 Stresses in excess of the absolute maximum ratings can permanently damage the device.
- 2 Exposure to absolute maximum ratings for extended periods may adversely affect device reliability.

Package Information

Pin #	Function
Pin 1	Vc = Control Voltage or NC
Pin 2	Reference Voltage (Vref) or NC
Pin 3	Vdd = Supply Voltage
Pin 4	OUT = Output
Pin 5	NC = Make No Connection
Pin 6	NC = Make No Connection
Pin 7	GND = Ground

Package and Assembly Notes:

- 1 For best signal integrity, do not run traces beneath the part.
- 2 Ensure the next layer under the part is ground plane.
- 3 Must be on the top side of the PCB during reflow.


Handling and Construction

Package Construction	7pin SMD
RoHS compliance	100% ROHS 6 compliant
Washable	yes
ESD, Human Body Model	500V
ESD, Charge Device Model	500V

Ordering Information
MV-OC917-2522C -

OCXO, HCMOS

25.4 x 22.1 x 11mm, 7 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

J: ±10 ppb

L: ±5 ppb

④ EFC

Z: ±500 ppm

Part Number Configuration Notes:

- 1 Tightest temperature stability options available as at -10 to +70 °C. For tightest stability at wide temp ranges - please contact us.
- 2 Standard Frequencies: 10MHz, 12.8MHz, 16.384MHz, 19.2MHz, 20MHz, 25MHz, Others available but may require longer lead time