

MV-VC724-1313C is a Voltage Controlled Crystal Oscillator (VCXO) . This VCXO provide low phase noise and jitter performance over a wide operating temperature range, CMOS output and comes in a Half Dip, Through Hole 12.7x12.7mm 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	0.001		250	MHz
Operating Temperature		-10/+70 to -55/+125		°C
Package Size		12.7 x 12.7 x 5.1		mm
Frequency Stability				
Stability Over Temperature		±50 to ±10		ppm
Aging /year (@ 25°C)			±2.0	ppm
Start Up Time			10	ms
Supply				
Supply Voltage (Vdd)	3.14	+3.3	3.47	V
Supply Current				
1 kHz			5	mA
40 MHz			30	mA
250 MHz			50	mA
Tuning				
Frequency Pull Range		±50 to ±100		ppm
Control Voltage to reach Pull Range	0		Vdd	V
Output				
Output Signal		CMOS		
Output Logic Level				
Output Level - Logic High	Vdd x 0.9			dBm
Output Load		15 pF		
Output Rise and Fall Time			10	ns
Duty Cycle	40		60	%
Phase Noise & Jitter				
Phase Noise: (100 MHz)				
100 Hz offset		-115		dBc/Hz
1kHz offset		-140		dBc/Hz
10kHz offset		-155		dBc/Hz
100kHz offset		-160		dBc/Hz
1MHz offset		-165		dBc/Hz
Jitter				
RMS Jitter: (12kHz - 20MHz) - 100 MHz		0.5		ps

Notes:

- For temperatures higher than -40/+85C tightest stabilities may not be available at certain frequencies.

Maximum Ratings

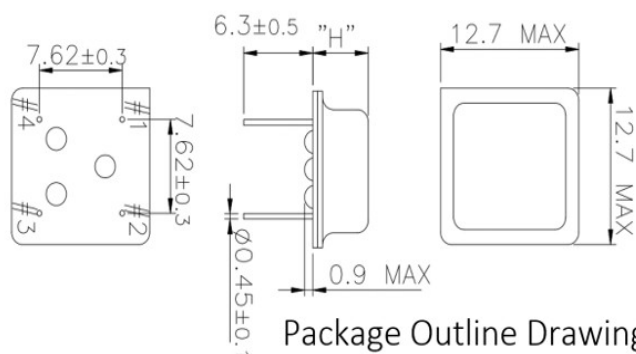
Storage Temp	-55°C to 125°C
Supply Voltage	3.3V ± 10%
Control Voltage	0V to Vdd

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
Pin 2	GND = Ground
Pin 3	OUT = Output
Pin 4	Vdd = Supply Voltage


Handling and Construction

Package Construction	Half Dip, Through Hole
Moisture Sensitivity Level	MSL 1
ESD, Human Body Model	500V
ESD, Charge Device Model	500V

Ordering Information
MV-VC724-1313C -

VCXO, CMOS

12.7 x 12.7 x 5.1mm, 4 Pins

B x x x - xxxMxxxx

① ② ③ ④

Frequency

① Voltage

B: 3.3 V

② Temp Range

J: -10/+70 °C

H: -20/+70 °C

K: -40/+85 °C

L: -40/+105 °C

M: -40/+125 °C

③ Temp Stability

C: ±50 ppm

D: ±30 ppm

E: ±25 ppm

F: ±20 ppm

G: ±15 ppm

J: ±10 ppm

④ Freq Pull Range

C: ±50 ppm

B: ±80 ppm

A: ±100 ppm

Part Number Configuration Notes:

- 1 Wider Pull Ranges ±150ppm or wider available. Please contact MV-Electronics for ordering codes.