

MV-OS924-9775B is a Oven Controlled Crystal Oscillator (OCXO) . This OCXO is a Small form factor OCXO, Clipped Sine Wave output and comes in a FR4 base with metal cover 9.7x7.5mm 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		9.7 x 7.5 x 5.5		mm
Frequency Stability				
Stability over Temp		±20 to ±5		ppb
Power Supply Stability (±5% Change)			±5	ppb
Aging / day			±3.0	ppb
Aging / year			±600	ppb
Aging - 10 years			±3000	ppb
Warm Up (5 Min) - Ref to Stab @ 1hr / 25°C			±100	ppb
Supply				
Supply Voltage (Vdd)	3.14	+3.3	3.47	V
Supply Current (Warm Up)			350	mA
Power Consumption (Steady State @+25°C)			0.4	W
Tuning				
Electrical Frequency Control (EFC)		±500		ppb
Slope		Positive		
Control Voltage to reach Pull Range	0	+1.65	3.3	V
Control Voltage Impedance	100			KΩ
Output				
Output Signal		Clipped Sine Wave		
Output Level - Logic High	Vdd x 0.9			V
Output Level - Logic Low			Vdd x 0.1	V
Output Load		10KΩ 10pF		
Duty Cycle	45		55	%
Phase Noise & Jitter				
Phase Noise: (20 MHz)				
10 Hz offset		-98	-92	dBc/Hz
100 Hz offset		-125	-120	dBc/Hz
1kHz offset		-145	-140	dBc/Hz
10kHz offset		-152	-150	dBc/Hz
10kHz offset		-152	-150	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:

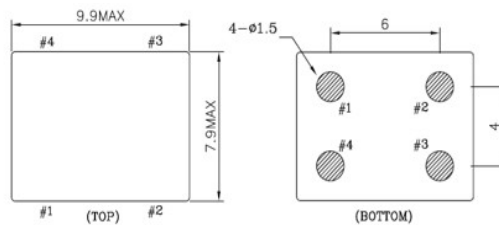
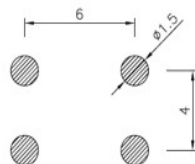
- 1 Stresses in excess of the absolute maximum ratings can permanently damage the device.
- 2 Exposure to absolute maximum ratings for extended periods may adversely affect device reliability.

Package Information

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

Package and Assembly Notes:

- 1 For best signal integrity, do not run traces beneath the part.
- 2 Must be on the top side of the PCB during reflow.

Pad Layout

Package Outline Drawing

Handling and Construction

Package Construction	FR4 base with metal cover
RoHS compliance	100% ROHS 6 compliant
Washable	Non-Washable Device
Moisture Sensitivity Level	MSL 1
ESD, Human Body Model	500V
ESD, Charge Device Model	500V

Ordering Information

MV-OS924-9775B - **B x x Z** **- xxMxxxxxx**
 OCXO, Clipped Sine Wave ① ② ③ ④ Frequency
 9.7 x 7.5 x 5.5mm, 4 Pins

① Voltage

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: ±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, 19.2MHz, 20MHz, 25MHz. Others available but may require longer lead time