

MV-OS9441-2522A is a Oven Controlled Crystal Oscillator (OCXO) . This OCXO is a Ultra Low Noise Floor, 12V, SMD, SINE Wave output and comes in a 5pin SMD 25.4x22.1mm 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		100		MHz
Operating Temperature		-10/+70 to -40/+85		°C
Package Size		25.4 x 22.1 x 13.2		mm
Frequency Stability				
Stability over Temp		±100 to ±20		ppb
Initial Accuracy (at 25°C, 15min)			±300	ppb
Power Supply Stability (±5% Change)			±5	ppb
Load Stability (±5% Change)			±5	ppb
Aging / day			±5.0	ppb
Aging / year			±500	ppb
Aging - 10 years			±2000	ppb
Warm Up (5 Min) - Ref to Stab @ 1hr / 25°C			±50	ppb
Short Term (ADEV), τ = 1 sec			5e-11	
Supply				
Supply Voltage (Vdd)	11.4	+12	12.6	V
Supply Current (Warm Up)			380	mA
Power Consumption (Steady State @+25°C)			2.1	W
Tuning				
Electrical Frequency Control (EFC)		±3000		ppb
Slope		Positive		
Control Voltage to reach Pull Range	0	+5.0	+10.0	V
Linearity		10		%
Output				
Output Signal		SINE Wave		
Output Power	+10			dBm
Output Load		50		Ω
Harmonics			-30	dBc
Spurious			-80	dBc
Phase Noise & Jitter				
Phase Noise: (100 MHz)				
10 Hz offset		-95	-93	dBc/Hz
100 Hz offset		-127	-125	dBc/Hz
1kHz offset		-156	-154	dBc/Hz
10kHz offset		-175	-173	dBc/Hz
100kHz offset		-179	-177	dBc/Hz
1MHz offset		-182	-180	dBc/Hz

Notes:

- 1 Warm Up: Stability referenced to frequency after 1 hour of operation at 25°C.
- 2 Initial tolerance specified at time of shipment and at nominal EFC

Maximum Ratings

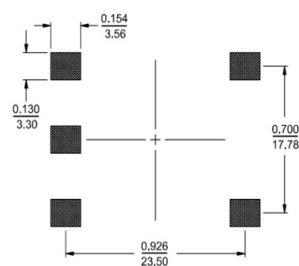
Storage Temp	-45°C to 95°C
Shock (MIL-STD-202, Method 213, Test Condition J)	30g, 11ms, half-sine (non-operating)
Vibration (MIL-STD-202, Method 201)	0.06" Total p-p, 10 to 55 Hz (non-operating)
Humidity (MIL-STD-202, Method 103, Test Condition A)	95% RH @ +40°C, non-condensing, 240 hours

Maximum Ratings Notes:

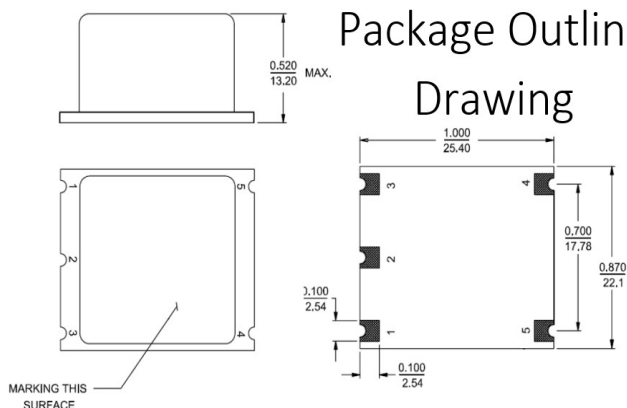
- 1 Stresses in excess of the absolute maximum ratings can permanently damage the device.
- 2 Exposure to absolute maximum ratings for extended periods may adversely affect device reliability.

Package Information

Pin #	Function
Pin 1	Vc = Control Voltage or NC
Pin 2	Reference Voltage (Vref) or NC
Pin 3	Vdd = Supply Voltage
Pin 4	OUT = Output
Pin 5	GND = Ground



Pad Layout



Package Outline
Drawing

Handling and Construction

Package Construction	5pin SMD
RoHS compliance	100% ROHS 6 compliant
Washable	Non-Washable Device
ESD, Human Body Model	500V
ESD, Charge Device Model	500V

Ordering Information

MV-OS9441-2522A - Z x x Z - 100M0000

OCXO, SINE Wave

25.4 x 22.1 x 13.2mm, 5 Pins

① ② ③ ④

Frequency

① Voltage

Z: 12 V

② Temp Range

J: -10/+70 °C

H: -20/+70 °C

K: -40/+85 °C

③ Temp Stability

A: ±100 ppb

C: ±50 ppb

D: ±30 ppb

F: ±20 ppb

④ EFC

Z: ±3000 ppm