

MV-OC9770-2525C is a Oven Controlled Crystal Oscillator (OCXO) . This OCXO is a Ultra Low G-Sense, Ultra Tight Stability, CMOS output and comes in a 9pin, Through Hole, Solder Seal 25.4x25.4mm 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 25.4 x 13.2		mm
Frequency Stability				
Stability over Temp		±1.0 to ±0.2		ppb
Initial Accuracy (at 25°C, 15min)			±10	ppb
Power Supply Stability (±5% Change)			±0.1	ppb
Load Stability (±10% Change)			±0.05	ppb
Aging / day			±0.1	ppb
Aging / year		±25		ppb
Aging - 20 years		±75		ppb
Holdover (12 Hours, Fixed Temp)		±1.5		µS
Warm Up (5 Min) - Ref to Stab @ 1hr / 25°C			±10	ppb
Short Term (ADEV), τ = 1 sec		5e-12		
G-Sensitivity			0.1	ppb/g
Supply				
Supply Voltage (Vdd)	3.14	+3.3	3.47	V
Supply Current (Warm Up)			250	mA
Power Consumption (Steady State @+25°C)			0.5	W
Output				
Output Signal		CMOS		
Output Level - Logic Low		+0.1	+0.4	V
Output Level - Logic High	+2.4	+2.8		V
Output Load		15		pF
Output Rise and Fall Time			1	nS
Duty Cycle	45	50	55	%
Phase Noise & Jitter				
Phase Noise: (100 MHz)				
1 Hz offset		-70		dBc/Hz
10 Hz offset		-95		dBc/Hz
100 Hz offset		-115		dBc/Hz
1kHz offset		-130		dBc/Hz
10kHz offset		-145		dBc/Hz
100kHz offset		-155		dBc/Hz

Notes:

- 1 Warm Up: Stability referenced to frequency after 1 hour of operation at 25°C.
- 2 Daily Aging: After 30 days of continuous operation
- 3 Long term Aging: may increase based on Operating Temperature range selected.
- 4 Temp Stability: Calculated as (Freq max - Freq min)/2

Maximum Ratings

Storage Temp	-45°C to 95°C
Shock (MIL-STD-202, Method 213, Test Condition C)	Survive
Vibration (MIL-STD-202, Method 204, Condition A)	Survive

Maximum Ratings Notes:

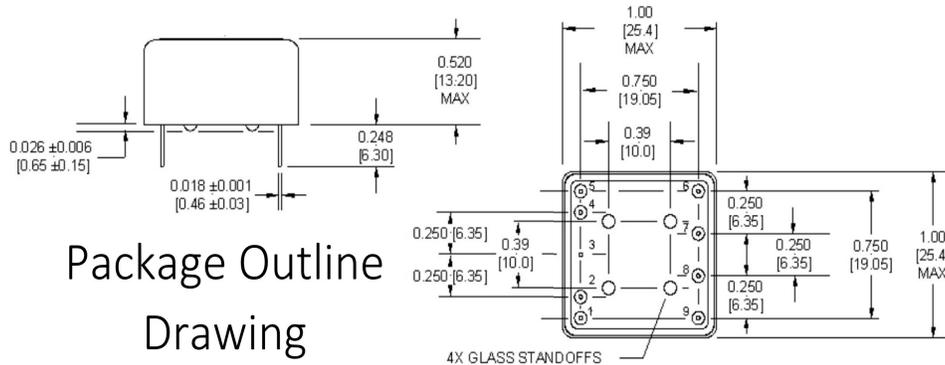
- 1 Stresses in excess of the absolute maximum ratings can permanently damage the device.
- 2 Exposure to absolute maximum ratings for extended periods may adversely affect device reliability.

Package Information

Pin #	Function
Pin 1	OUT = Output
Pin 3	GND = Ground
Pin 9	Vdd = Supply Voltage
All Others	NC = Make No Connection

Package and Assembly Notes:

- 1 No ultrasonic cleaning. May damage the device.
- 2 Must be on the top side of the PCB during reflow.



Package Outline Drawing

Handling and Construction

Package Construction	9pin, Through Hole, Solder Seal
RoHS compliance	100% ROHS 6 compliant
Washable	Yes
Moisture Sensitivity Level	MSL 3
ESD, Human Body Model	500V
ESD, Charge Device Model	500V

Ordering Information

MV-OC9770-2525C -

OCXO, CMOS

25.4 x 25.4 x 13.2mm, 9 Pins

B x x

① ② ③

- 100M0000

Frequency

① Voltage

B: 3.3 V

② Temp Range

J: -10/+70 °C

H: -20/+70 °C

K: -40/+85 °C

③ Temp Stability

Q: ±1.0 ppb

R: ±0.5 ppb

T: ±0.2 ppb