

MV-OC973-3627A is a Oven Controlled Crystal Oscillator (OCXO) . This OCXO is a Ultra Low G-Sense, Ultra Tight Stability, CMOS output and comes in a Solder Seal 36 x 27mm 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/+105		°C
Package Size		36 x 27 x 13.2		mm
Frequency Stability				
Stability over Temp		±1.0 to ±0.28		ppb
Initial Accuracy (at 25°C, 15min)			±5	ppb
Power Supply Stability (±5% Change)			±0.1	ppb
Load Stability (±10% Change)			±0.25	ppb
Aging / day			±1.0	ppb
Aging / year			±50	ppb
Aging - 20 years			±250	ppb
Warm Up (5 Min) - Ref to Stab @ 1hr / 25°C			±10	ppb
G-Sensitivity			0.05	ppb/g
Supply				
Supply Voltage (Vdd)		+5.0		V
Supply Current (Warm Up)			1050	mA
Power Consumption (Steady State @+25°C)			2.0	W
Tuning				
Electrical Frequency Control (EFC)		±6500		ppb
Slope		Positive		
Control Voltage to reach Pull Range	0	+1.65	+3.3	V
Linearity		1		%
Control Voltage Impedance		50		KΩ
Output				
Output Signal		CMOS		
Output Level - Logic Low		+0.1	+0.4	V
Output Level - Logic High	+2.4	+3.3		V
Output Load		15		pF
Output Rise and Fall Time			6	nS
Duty Cycle	45	50	55	%
Phase Noise & Jitter				
Phase Noise: (10 MHz)				
1 Hz offset		-80	-74	dBc/Hz
10 Hz offset		-108	-102	dBc/Hz
100 Hz offset		-127	-123	dBc/Hz
1kHz offset		-148	-145	dBc/Hz
10kHz offset		-154	-150	dBc/Hz
100kHz offset		-154	-150	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
- 3 Long term Aging: may increase based on Operating Temperature range selected.

Maximum Ratings

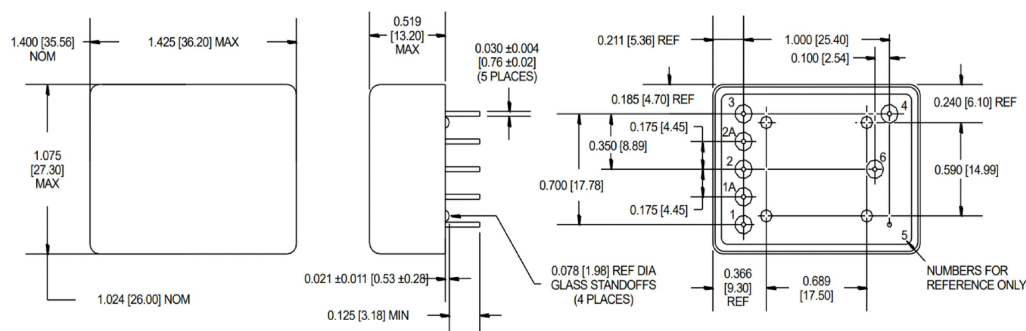
Storage Temp	-55°C to 105°C
Shock (MIL-STD-202, Method 213, Test Condition C)	Survive
Vibration (MIL-STD-202, Method 204, Condition A)	Survive

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	V _c = Control Voltage or NC
Pin 1A	NC = Make No Connection
Pin 2	Reference Voltage (V _{ref}) or NC
Pin 2A	NC = Make No Connection
Pin 3	V _{dd} = Supply Voltage
Pin 4	OUT = Output
Pin 5	GND = Ground
Pin 6	NC = Make No Connection



Package Outline Drawing

Handling and Construction

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

Ordering Information
MV-OC973-3627A -

OCXO, CMOS

36 x 27 x 13.2mm, 7 Pins

A x x

① ② ③

- xxMxxxxxx

Frequency

① Voltage

A: 5.0 V

② Temp Range

J: -10/+70 °C

H: -20/+70 °C

K: -40/+85 °C

L: -40/+105 °C

③ Temp Stability

Q: ±1.0 ppb

R: ±0.5 ppb

S: ±0.28 ppb

Z: ±6500 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.