

MV-OC933-3627B is a Oven Controlled Crystal Oscillator (OCXO) . This OCXO is a Ultra Stable, Euro Case, @ 5.0V, CMOS output and comes in a 5pin, Through Hole, 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		MHz
Operating Temperature		-10/+70 to -40/+85		°C
Package Size		36 x 27 x 18.8		mm
Frequency Stability				
Stability over Temp		±0.5 to ±0.05		ppb
Initial Accuracy (at 25°C, 15min)			±100	ppb
Power Supply Stability (±5% Change)			±0.1	ppb
Aging / day			±0.1	ppb
Aging / year			±20	ppb
Aging - 10 years			±100	ppb
Warm Up (5 Min) - Ref to Stab @ 1hr / 25°C			±10	ppb
Short Term (ADEV), $\tau = 1$ sec @ 10MHz			5e-12	
Supply				
Supply Voltage (Vdd)		+5.0		V
Supply Current (Warm Up)			1750	mA
Power Consumption (Steady State @+25°C)			2.5	W
Tuning				
Electrical Frequency Control (EFC)	±150	±200	±250	ppb
Slope		Positive		
Control Voltage to reach Pull Range	0	+1.4	Vref	V
Vref - Reference Voltage	2.7	2.8	2.9	V
Linearity		10		%
Control Voltage Impedance	50			K Ω
Output				
Output Signal		CMOS		
Output Level - Logic Low			+0.4	V
Output Level - Logic High	+2.6			V
Output Load		15		pF
Spurious			-60	dBc
Duty Cycle	45	50	55	%
Phase Noise & Jitter				
Phase Noise: (10 MHz)				
1 Hz offset		-95	-90	dBc/Hz
10 Hz offset		-125	-120	dBc/Hz
100 Hz offset		-140	-135	dBc/Hz
1kHz offset		-150	-145	dBc/Hz
10kHz offset		-156	-155	dBc/Hz
100kHz offset		-162	-160	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

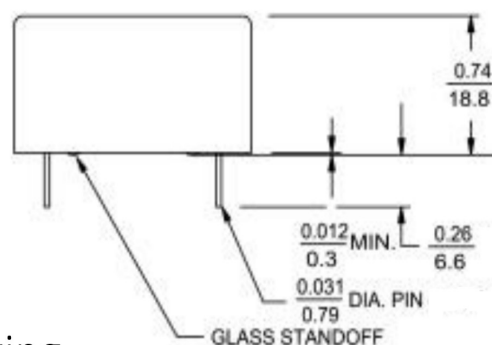
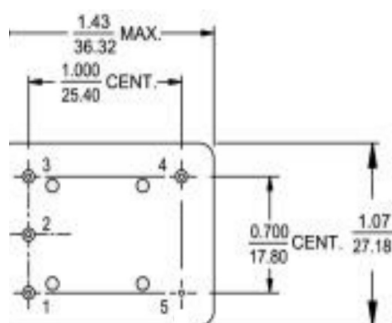
Storage Temp	-45°C to 95°C
Shock (MIL-STD-202, Method 213, Test Condition J)	30g, 11ms, half-sine (non-operating)
Vibration (MIL-STD-202, Method 201)	0.06" Total p-p, 10 to 55 Hz (non-operating)

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



Package Outline Drawing

Handling and Construction

Package Construction	5pin, Through Hole, Solder Seal
RoHS compliance	100% ROHS 6 compliant
Reflow	Reflow not recommended
ESD, Human Body Model	500V
ESD, Charge Device Model	500V

Ordering Information
MV-OC933-3627B -

OCXO, CMOS

36 x 27 x 18.8mm, 5 Pins

A x x Z - 10M00000

① ② ③ ④

Frequency

① Voltage

A: 5.0 V

② Temp Range

J: -10/+70 °C

H: -20/+70 °C

K: -40/+85 °C

③ Temp Stability

R: ±0.5 ppb

S: ±0.28 ppb

T: ±0.2 ppb

U: ±0.1 ppb

Z: ±0.05 ppb

④ EFC

Z: ±250 to ±150 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.