

Plug-In

# Voltage Controlled Oscillator

POS-150+  
POS-150

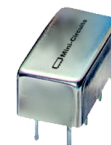
Linear Tuning 75 to 150 MHz

## Features

- low load pulling, 0.8 MHz typ.
- excellent harmonics suppression, -23 dBc typ.
- hermetically sealed

## Applications

- test instruments
- signal generators



CASE STYLE:A06

PRICE: \$11.95 ea. QTY (5-49)

**+ RoHS compliant in accordance  
with EU Directive (2002/95/EC)**

See our web site for RoHS Compliance methodologies and qualifications.

## Electrical Specifications

MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	TUNING VOLTAGE (V)		PHASE NOISE dBc/Hz SSB at offset frequencies: Typ.				PULLING pk-pk @ 12 dB (MHz)	PUSHING (MHz/V)	TUNING SENSITIVITY (MHz/V)	HARMONICS (dBc)		3 dB MODULATION BANDWIDTH (MHz)	DC OPERATING POWER	
	Min.	Max.		Min.	Max.	1 kHz	10 kHz	100 kHz	1 MHz				Typ.	Max.		Vcc (volts)	Current (mA) Max.
POS-150(+)	75	150	+9.5	1	16	-80	-103	-127	-147	0.8	0.3	5.8-6.7	-23	-17	0.1	12	20

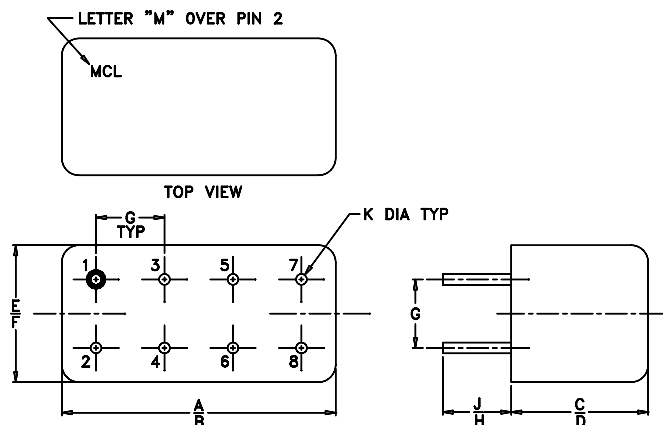
## Pin Connections

RFOUT	2
VCC	1
V-TUNE	8
CASE	3,4,5,6,7
CASE GROUND	3,4,5,6,7

## Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (Vcc)	+16V
Absolute Max. Tuning Voltage (Vtune)	+18V
all specifications: 50 ohm system	

## Outline Drawing



NOTE: BLUE BEAD INDICATES PIN 1.  
PIN NUMBERS DO NOT APPEAR ON UNIT,  
FOR REFERENCE ONLY.

## Outline Dimensions (inch)

A	B	C	D	E	F	G	H	J	K	wt.
.770	.800	.285	.310	.370	.400	.200	.20	.14	.031	grams
19.56	20.32	7.24	7.87	9.40	10.16	5.08	5.08	3.56	.79	5.2



INTERNET <http://www.minicircuits.com>

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661

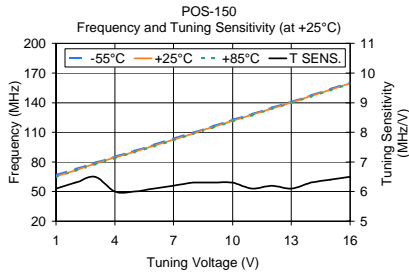
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Mini-Circuits ISO 9001 & ISO 14001 Certified

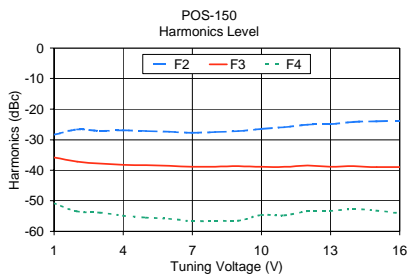
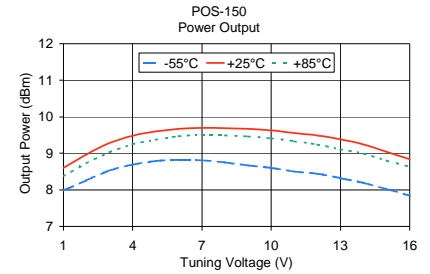
REV. H  
M98898  
POS-150  
SK/TD/CP  
051206  
page 1 of 2

# Performance Curves

## POS-150+ POS-150



V TUNE	TUNING SENS. (MHz/V)	FREQUENCY (MHz)			POWER OUTPUT (dBm)		
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C
1.0	6.1	66.6	65.3	64.6	7.9	8.6	8.3
2.0	6.3	72.9	71.6	71.1	8.2	8.9	8.7
3.0	6.5	79.4	78.2	77.6	8.5	9.2	9.0
4.0	6.0	85.4	84.2	83.6	8.6	9.4	9.2
5.0	6.0	91.3	90.2	89.6	8.7	9.6	9.3
6.0	6.1	97.4	96.3	95.7	8.8	9.6	9.4
7.0	6.2	103.6	102.6	101.9	8.8	9.7	9.5
8.0	6.3	110.0	108.9	108.2	8.7	9.6	9.4
9.0	6.3	116.3	115.3	114.6	8.6	9.6	9.4
10.0	6.3	122.5	121.6	120.9	8.6	9.6	9.4
11.0	6.1	128.7	127.8	127.1	8.5	9.5	9.3
12.0	6.2	134.9	134.0	133.4	8.4	9.4	9.2
13.0	6.1	141.0	140.2	139.6	8.3	9.3	9.1
14.0	6.3	147.3	146.5	146.0	8.1	9.2	8.9
15.0	6.4	153.7	153.0	152.4	8.0	9.0	8.8
16.0	6.5	160.2	159.5	158.9	7.8	8.8	8.6



V TUNE	HARMONICS (dBc)			FREQ. PUSHING (MHz/V)
	F2	F3	F4	
1.0	-28.4	-35.8	-50.8	-0.04
2.0	-26.7	-37.2	-53.5	0.37
3.0	-27.1	-37.8	-53.9	0.23
4.0	-26.9	-38.2	-54.9	0.17
5.0	-27.2	-38.4	-55.5	0.16
6.0	-27.4	-38.6	-55.9	0.17
7.0	-27.8	-38.8	-56.7	0.21
8.0	-27.5	-38.8	-56.5	0.25
9.0	-27.2	-38.7	-56.5	0.27
10.0	-26.5	-38.9	-54.7	0.30
11.0	-25.9	-38.9	-54.8	0.28
12.0	-25.1	-38.5	-53.4	0.25
13.0	-24.9	-38.8	-53.3	0.24
14.0	-24.2	-38.7	-52.7	0.26
15.0	-24.0	-39.0	-53.2	0.29
16.0	-23.8	-39.0	-54.1	0.38

