

Plug-In

# Voltage Controlled Oscillator

POS-100P

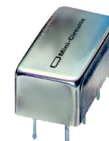
5V Tuning for PLL IC's 48 to 59 MHz

## Features

- 5V tuning voltage range
- low phase noise
- hermetically sealed

## Applications

- PLL circuitry
- measurement instrumentation
- synthesizers



CASE STYLE: A06  
PRICE: \$12.95 ea. QTY (5-49)

## Electrical Specifications

MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	PHASE NOISE dBc/Hz SSB at offset frequencies: Typ.				PULLING pk-pk @ 12 dBr (MHz)	PUSHING (MHz/V)	TUNING SENSITIVITY (MHz/V)	HARMONICS (dBc)		3 dB MODULATION BANDWIDTH (MHz)	DC OPERATING POWER	
	Min.	Max.		1 kHz	10 kHz	100 kHz	1 MHz				Typ.	Max.		Typ.	Voltage (V)
POS-100P	48	59	9	-92	-112	-134	-151	0.8	0.2	3.5 - 5.0	-30	-18	0.1	12	20

TUNING VOLTAGE TO COVER FREQUENCY RANGE 0.5V MIN. TO 5V MAX.

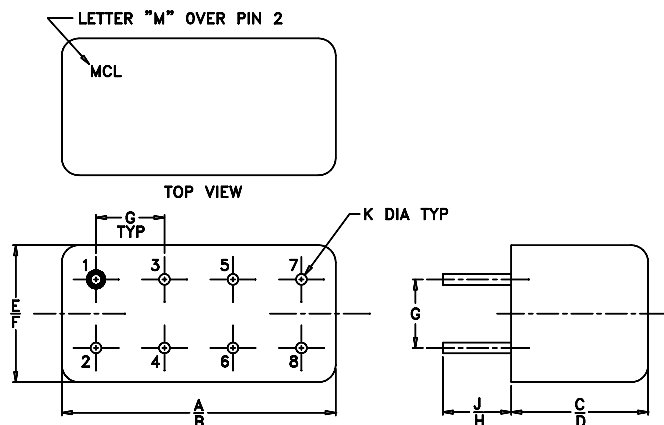
## Pin Connections

RFOUT	2
VCC	1
V-TUNE	8
GROUND	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)	+7V
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



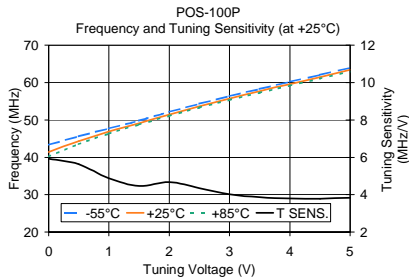
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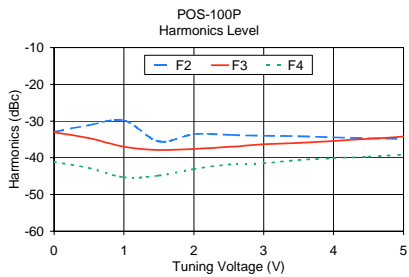
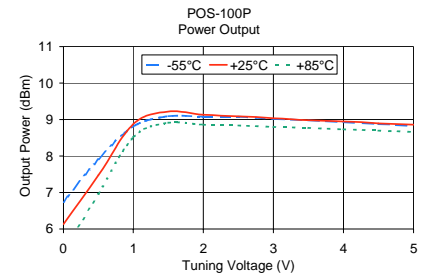
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Mini-Circuits ISO 9001 & ISO 14001 Certified

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M97035  
POS-100P  
SK/TD/CP  
051206  
page 1 of 2



V TUNE	TUNING SENS. (MHz/V)	FREQUENCY (MHz)			POWER OUTPUT (dBm)		
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C
0.0	5.93	43.34	41.46	40.21	6.74	6.13	5.35
0.5	5.63	45.64	44.35	43.52	7.91	7.47	6.96
1.0	4.88	47.75	46.87	46.32	8.81	8.88	8.52
1.5	4.47	49.80	49.15	48.75	9.09	9.22	8.91
2.0	4.68	52.13	51.45	51.10	9.08	9.13	8.86
2.5	4.35	54.35	53.69	53.32	9.08	9.09	8.84
3.0	4.02	56.37	55.73	55.34	9.02	9.04	8.80
3.5	3.87	58.30	57.68	57.28	8.98	8.98	8.77
4.0	3.80	60.19	59.59	59.18	8.93	8.95	8.73
4.5	3.79	62.07	61.49	61.06	8.88	8.90	8.70
5.0	3.84	63.98	63.41	62.97	8.82	8.86	8.66



V TUNE	HARMONICS (dBc)			FREQ. PUSHING (MHz/V)
	F2	F3	F4	
0.0	-32.96	-33.12	-41.12	0.06
0.5	-31.13	-34.63	-42.80	0.13
1.0	-29.85	-37.02	-45.35	0.19
1.5	-35.52	-37.86	-44.86	0.26
2.0	-33.60	-37.60	-43.10	0.26
2.5	-33.73	-37.06	-41.89	0.26
3.0	-34.02	-36.35	-41.52	0.19
3.5	-34.13	-35.96	-40.63	0.19
4.0	-34.43	-35.43	-40.10	0.19
4.5	-34.71	-34.88	-39.71	0.13
5.0	-34.84	-34.17	-39.17	0.06

