

Plug-In

Voltage Controlled Oscillator

POS-50+
POS-50

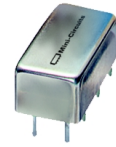
Linear Tuning 25 to 50 MHz

Features

- low phase noise
- low load pull, 0.06 MHz typ.
- hermetically sealed

Applications

- frequency synthesizers
- signal generators



CASE STYLE:A06
Å

+ 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 dBr (MHz)	PUSHING (MHz/V)	TUNING SENSITIVITY (MHz/V)	HARMONICS (dBc)		3 dB MODULATION BANDWIDTH (MHz)	DC OPERATING POWER	
	Min.	Max.	Typ.	Min.	Max.	1 kHz	10 kHz	100 kHz	1 MHz	Typ.	Typ.	Typ.	Typ.	Max.	Typ.	Vcc (volts)	Current (mA) Max.
POS-50(+)	25	50	+8.5	1	16	-88	-110	-130	-150	0.06	0.04	2.0-2.6	-19	-12	0.1	12	20

Pin Connections

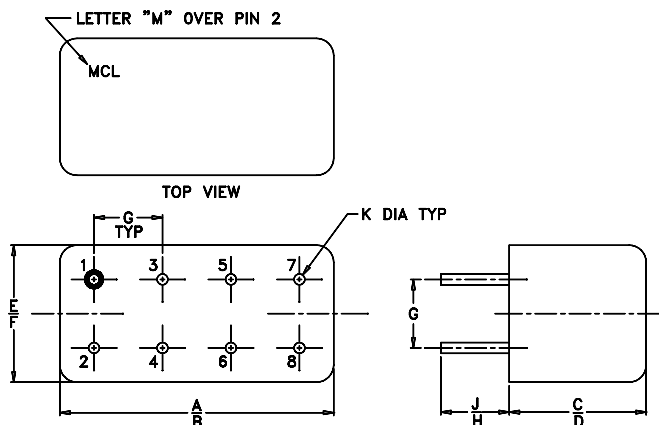
RFOUT	2
VCC	1
V-TUNE	8
GROUND	3,4,5,6,7
CASE GROUND	3,4,5,6,7

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)	+17V

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/mm)

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



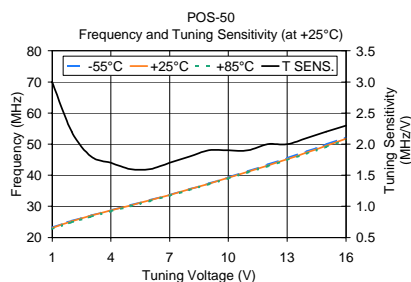
INTERNET <http://www.minicircuits.com>

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

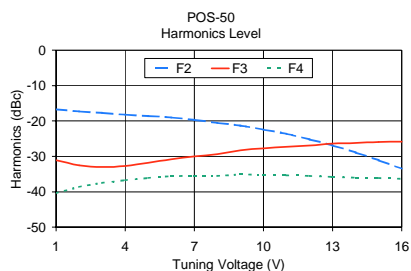
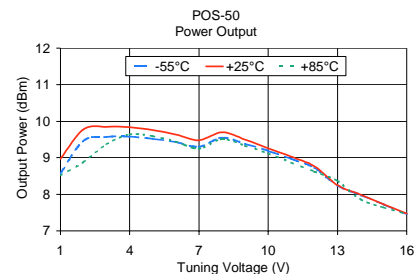
Distribution Centers NORTH AMERICA 800-654-7949 • 417-335-5935 • Fax 417-335-5945 • EUROPE 44-1252-832600 • Fax 44-1252-837010

Mini-Circuits ISO 9001 & ISO 14001 Certified

REV. H
M98898
POS-50
SK/TD/CP
051103
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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	3.0	23.1	23.0	22.6	8.5	8.9	8.5
2.0	2.2	25.3	25.2	24.8	9.4	9.7	8.8
3.0	1.8	27.1	27.0	26.7	9.5	9.8	9.3
4.0	1.7	28.7	28.7	28.4	9.5	9.8	9.6
5.0	1.6	30.3	30.3	30.0	9.5	9.7	9.5
6.0	1.6	31.9	31.9	31.7	9.4	9.6	9.4
7.0	1.7	33.7	33.6	33.4	9.3	9.4	9.2
8.0	1.8	35.4	35.4	35.2	9.5	9.7	9.5
9.0	1.9	37.3	37.3	37.0	9.3	9.5	9.3
10.0	1.9	39.2	39.2	39.0	9.1	9.2	9.1
11.0	1.9	41.3	41.1	40.9	8.9	9.0	8.8
12.0	2.0	43.3	43.1	42.9	8.7	8.7	8.6
13.0	2.0	45.5	45.1	44.9	8.2	8.2	8.3
14.0	2.1	47.6	47.2	46.9	7.9	7.9	7.8
15.0	2.2	49.9	49.4	49.1	7.7	7.7	7.6
16.0	2.3	52.1	51.7	51.2	7.4	7.4	7.4



V TUNE	HARMONICS (dBc)			FREQ. PUSHING (MHz/V)
	F2	F3	F4	
1.0	-16.7	-31.1	-40.4	0.00
2.0	-17.3	-32.5	-38.6	0.02
3.0	-17.7	-33.0	-37.5	0.01
4.0	-18.2	-32.7	-36.7	0.02
5.0	-18.6	-31.8	-36.1	0.03
6.0	-19.0	-30.8	-35.6	0.03
7.0	-19.7	-30.0	-35.5	0.03
8.0	-20.5	-29.3	-35.5	0.02
9.0	-21.3	-28.3	-35.1	0.00
10.0	-22.4	-27.7	-35.2	0.01
11.0	-23.6	-27.3	-35.3	0.03
12.0	-25.2	-26.9	-35.5	0.03
13.0	-26.9	-26.4	-35.8	0.09
14.0	-28.9	-26.2	-36.0	0.13
15.0	-31.1	-25.9	-36.1	0.17
16.0	-33.5	-25.8	-36.3	0.20

