

Plug-In

Voltage Controlled Oscillator

POS-50+

Linear Tuning 25 to 50 MHz

Features

- low phase noise
- low load pull, 0.03 MHz typ.
- hermetically sealed

Applications

- frequency synthesizers
- signal generators



CASE STYLE: A06
PRICE: \$11.95 QTY. (5-49)

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Electrical Specifications

FREQUENCY (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.	Typ.	Min.	Max.	1 kHz	10 kHz	100 kHz	1 MHz	Typ.	Typ.	Typ.	Typ.	Max.	Typ.	V _{cc} (volts)	Current (mA) Max.
25	50	+8.5	1	16	-85	-105	-125	-145	0.03	0.04	2.0-2.6	-19	-12	0.1	12	20

Pin Connections

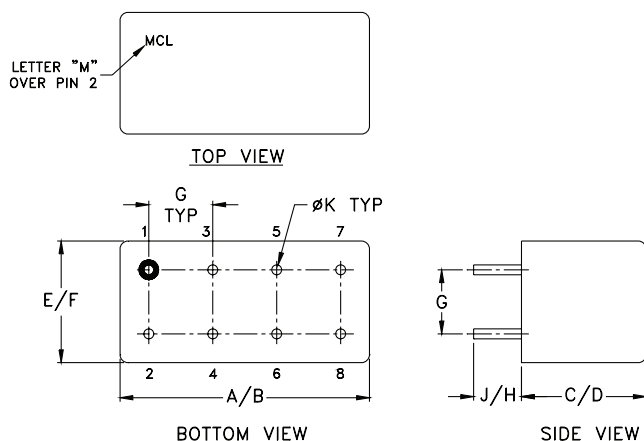
RF OUT	2
VCC	1
V-TUNE	8
GROUND	3,4,5,6,7
CASE GROUND	3,4,5,6,7

Maximum Ratings

Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage (V _{cc})	+16V
Absolute Max. Tuning Voltage (V _{tune})	+17V

all specifications: 50 ohm system
Permanent damage may occur if any of these limits are exceeded.

Outline Drawing



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
19.558	20.32	7.239	7.874	9.398	10.16	5.08	5.08	3.556	0.7874	5.2

Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

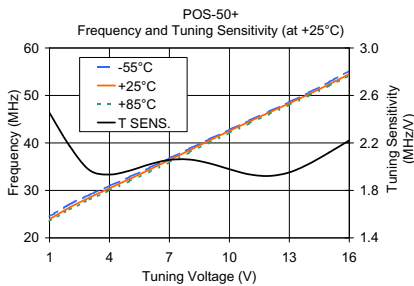


www.minicircuits.com P.O. Box 35166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

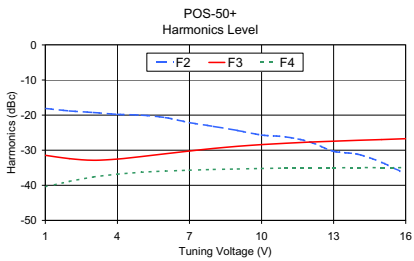
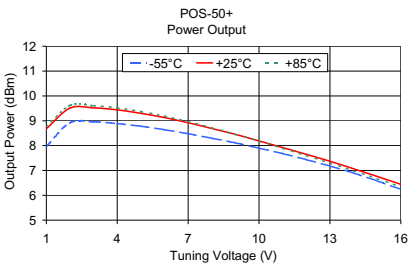
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POS-50+
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Performance Data & Curves

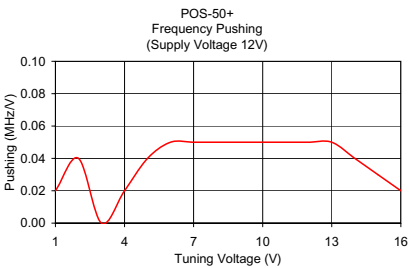
POS-50+



V TUNE	TUNING SENS. (MHz/V)	FREQUENCY (MHz)			POWER OUTPUT (dBm)		
		-55°C	+25°C	+85°C	-55°C	+25°C	+85°C
1.00	2.45	24.5	23.9	23.6	7.96	8.68	8.76
2.00	2.18	27.1	26.4	26.0	8.92	9.51	9.62
3.00	1.97	29.1	28.5	28.1	8.96	9.52	9.61
4.00	1.93	31.0	30.5	30.0	8.89	9.44	9.52
5.00	1.97	32.8	32.4	31.9	8.78	9.30	9.37
6.00	2.02	34.8	34.4	33.9	8.64	9.13	9.19
7.00	2.06	36.8	36.4	35.9	8.48	8.92	8.97
8.00	2.06	38.8	38.5	38.0	8.30	8.69	8.72
9.00	2.03	40.8	40.5	40.1	8.11	8.45	8.46
10.00	1.98	42.8	42.5	42.1	7.90	8.19	8.18
11.00	1.93	44.7	44.5	44.1	7.68	7.92	7.89
12.00	1.92	46.7	46.4	46.1	7.44	7.65	7.60
13.00	1.95	48.6	48.4	48.0	7.18	7.37	7.30
14.00	2.02	50.7	50.3	50.0	6.90	7.07	6.99
15.00	2.12	52.9	52.4	52.1	6.58	6.76	6.67
16.00	2.22	55.2	54.5	54.2	6.24	6.44	6.34



V TUNE	HARMONICS (dBc)			FREQ. PUSHING (MHz/V)
	F2	F3	F4	
1.00	-18.1	-31.5	-40.4	0.02
2.00	-18.8	-32.4	-38.9	0.04
3.00	-19.2	-32.9	-37.6	0.00
4.00	-19.8	-32.5	-36.8	0.02
5.00	-20.0	-31.8	-36.3	0.04
6.00	-20.7	-31.0	-35.9	0.05
7.00	-22.1	-30.2	-35.7	0.05
8.00	-23.2	-29.5	-35.5	0.05
9.00	-24.4	-28.9	-35.3	0.05
10.00	-25.7	-28.4	-35.2	0.05
11.00	-26.2	-28.0	-35.1	0.05
12.00	-27.6	-27.7	-35.1	0.05
13.00	-30.3	-27.4	-35.0	0.05
14.00	-31.1	-27.2	-34.9	0.04
15.00	-33.5	-27.0	-35.0	0.03
16.00	-36.8	-26.7	-35.0	0.02



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