

Plug-In

Voltage Controlled Oscillator

POS-300+
POS-300

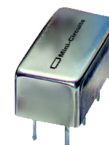
Linear Tuning 150 to 280 MHz

Features

- output suitable for LO drive to level 10 mixers
- low phase noise
- hermetically sealed

Applications

- VHF transmitters/receivers
- test instruments



CASE STYLE: A06

PRICE: \$13.95 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.		V _{cc} (volts)	Current (mA) Max.
POS-300(+)	150	280	+10	1	16	-78	-100	-120	-140	1.8	0.3	9.5-13	-30	-20	0.1	12	20

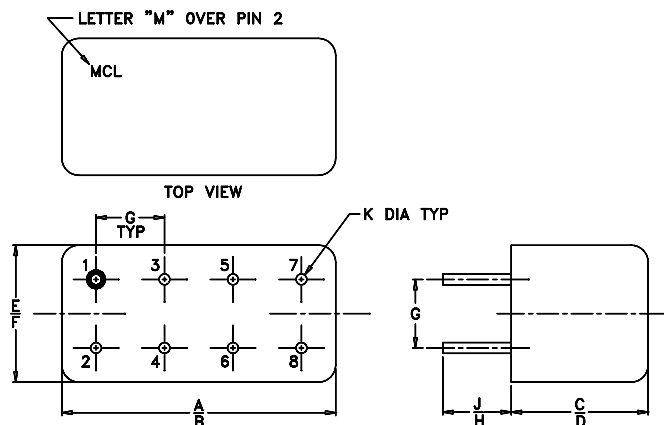
Pin Connections

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 (V _{cc})	+16V
Absolute Max. Tuning Voltage (V _{tune})	+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

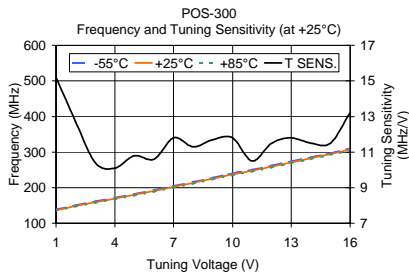
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Mini-Circuits ISO 9001 & ISO 14001 Certified

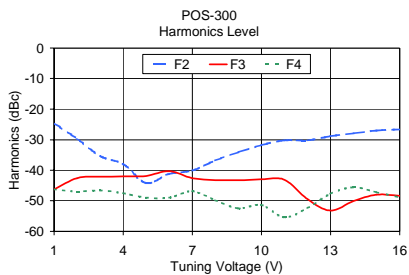
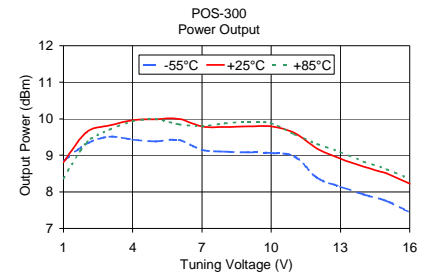
REV. H
M98898
POS-300
SK/TD/CP
051103
page 1 of 2

Performance Curves

POS-300+ POS-300



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	15.2	138.5	136.0	135.7	8.84	8.81	8.37
2.0	12.7	150.6	148.6	147.1	9.31	9.63	9.34
3.0	10.4	161.0	159.0	157.3	9.51	9.82	9.70
4.0	10.1	171.6	169.2	167.4	9.43	9.96	9.93
5.0	10.8	182.2	180.0	177.9	9.38	9.99	9.99
6.0	10.6	193.3	190.7	188.7	9.42	10.00	9.85
7.0	11.8	204.7	202.4	200.3	9.15	9.79	9.80
8.0	11.3	216.4	213.8	211.4	9.10	9.78	9.88
9.0	11.7	227.9	225.5	223.4	9.08	9.79	9.91
10.0	11.8	240.0	237.3	234.8	9.06	9.79	9.88
11.0	10.5	250.3	247.8	245.4	8.97	9.62	9.58
12.0	11.5	261.9	259.3	256.9	8.38	9.18	9.31
13.0	11.8	274.0	271.1	268.4	8.14	8.91	9.09
14.0	11.5	285.3	282.6	279.9	7.93	8.69	8.83
15.0	11.5	296.5	294.1	291.6	7.75	8.50	8.62
16.0	13.2	310.3	307.3	304.6	7.44	8.22	8.35



V TUNE	HARMONICS (dBc)			FREQ. PUSHING (MHz/V)
	F2	F3	F4	
1.0	-24.6	-46.3	-46.3	0.37
2.0	-29.7	-42.6	-47.0	0.21
3.0	-35.4	-42.1	-46.6	0.19
4.0	-38.0	-42.0	-47.5	0.10
5.0	-44.2	-41.9	-49.0	0.16
6.0	-41.2	-40.3	-49.0	0.03
7.0	-40.1	-42.6	-46.9	0.25
8.0	-36.8	-43.2	-49.8	0.12
9.0	-34.1	-43.3	-52.5	0.34
10.0	-31.8	-43.0	-51.4	0.25
11.0	-30.2	-43.1	-55.4	0.03
12.0	-30.2	-49.5	-52.4	0.29
13.0	-28.9	-53.2	-47.7	0.20
14.0	-27.9	-50.1	-45.6	0.08
15.0	-27.0	-48.0	-47.2	0.20
16.0	-26.7	-48.4	-48.9	0.45

