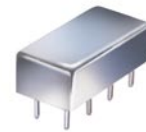


Plug-In

Voltage Controlled Oscillator

POS-400+

Linear Tuning 200 to 380 MHz



Features

- wideband, 200 to 380 MHz
- excellent harmonic suppression, -28 dBc typ.
- hermetically sealed

Applications

- test instruments
- agile communications systems

CASE STYLE: A06
PRICE: \$13.95 ea. QTY (5-49)

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

The +Suffix has been added in order to identify 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. | Vcc (volts) | Current (mA) Max. |
| 200 | 380 | +9.5 | 1 | 16 | -76 | -98 | -120 | -140 | 1.8 | 0.3 | 13.7-16.9 | -28 | -20 | 0.1 | 12 | 20 |

Pin Connections

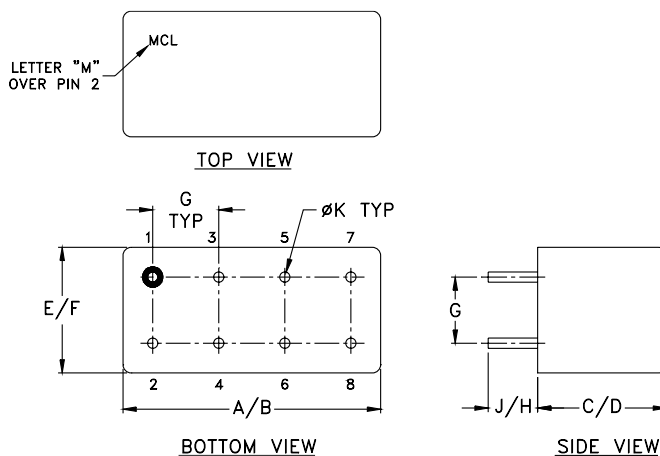
| | |
|-------------|-----------|
| RF OUT | 2 |
| VCC | 1 |
| V-TUNE | 8 |
| GROUND | 3,4,5,6,7 |
| CASE GROUND | 3,4,5,6,7 |

Maximum Ratings

| | |
|--------------------------------------|----------------|
| Operating Temperature | -55°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| Absolute Max. Supply Voltage (Vcc) | +16V |
| Absolute Max. Tuning Voltage (Vtune) | +18V |

all specifications: 50 ohm system

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 |



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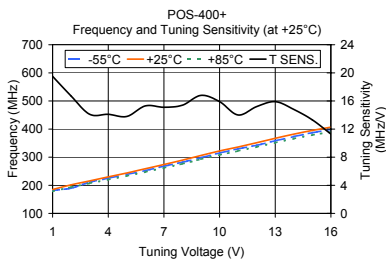


The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

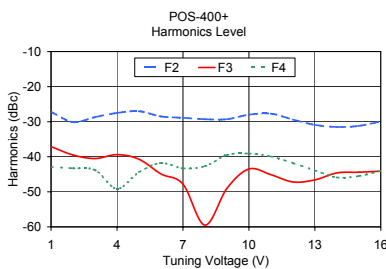
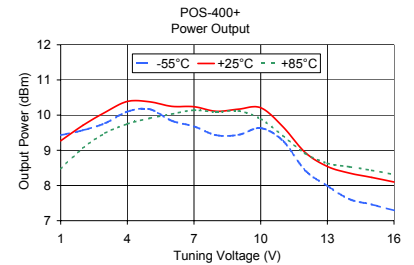
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Performance Data & Curves

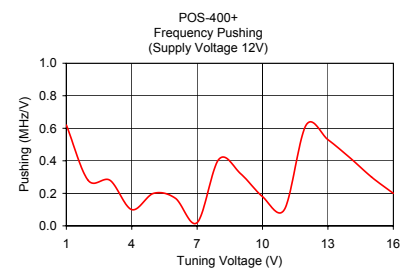
POS-400+



| 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 | 19.50 | 181.60 | 184.88 | 178.08 | 9.43 | 9.27 | 8.47 |
| 2.00 | 16.70 | 189.70 | 201.58 | 193.38 | 9.57 | 9.71 | 9.06 |
| 3.00 | 14.10 | 211.25 | 215.71 | 207.00 | 9.77 | 10.08 | 9.49 |
| 4.00 | 14.10 | 224.98 | 229.83 | 220.17 | 10.10 | 10.39 | 9.75 |
| 5.00 | 13.80 | 238.65 | 243.63 | 233.22 | 10.17 | 10.38 | 9.91 |
| 6.00 | 15.30 | 252.53 | 258.88 | 247.43 | 9.84 | 10.25 | 10.03 |
| 7.00 | 15.10 | 267.80 | 273.95 | 261.75 | 9.68 | 10.24 | 10.14 |
| 8.00 | 15.40 | 282.13 | 289.35 | 276.48 | 9.43 | 10.11 | 10.09 |
| 9.00 | 16.80 | 298.35 | 306.18 | 292.55 | 9.44 | 10.17 | 10.12 |
| 10.00 | 15.90 | 314.65 | 322.08 | 308.05 | 9.63 | 10.21 | 9.89 |
| 11.00 | 14.00 | 329.68 | 336.13 | 322.25 | 9.27 | 9.67 | 9.42 |
| 12.00 | 15.20 | 342.40 | 351.32 | 336.42 | 8.43 | 8.94 | 8.91 |
| 13.00 | 15.90 | 358.26 | 367.18 | 351.48 | 7.99 | 8.54 | 8.63 |
| 14.00 | 14.80 | 373.38 | 382.00 | 365.85 | 7.61 | 8.35 | 8.53 |
| 15.00 | 13.30 | 386.98 | 395.30 | 378.86 | 7.46 | 8.23 | 8.43 |
| 16.00 | 11.30 | 398.75 | 406.65 | 390.35 | 7.29 | 8.10 | 8.31 |



| V TUNE | HARMONICS (dBc) | | | FREQ. PUSHING (MHz/V) |
|--------|-----------------|--------|--------|-----------------------|
| | F2 | F3 | F4 | |
| 1.00 | -27.20 | -37.10 | -42.90 | 0.62 |
| 2.00 | -30.10 | -39.50 | -43.30 | 0.28 |
| 3.00 | -28.70 | -40.50 | -43.80 | 0.28 |
| 4.00 | -27.50 | -39.40 | -49.10 | 0.10 |
| 5.00 | -27.00 | -40.70 | -44.40 | 0.20 |
| 6.00 | -28.50 | -44.90 | -41.80 | 0.17 |
| 7.00 | -28.90 | -47.80 | -43.30 | 0.02 |
| 8.00 | -29.30 | -59.50 | -42.70 | 0.41 |
| 9.00 | -29.30 | -49.00 | -39.50 | 0.32 |
| 10.00 | -28.00 | -43.50 | -39.10 | 0.18 |
| 11.00 | -27.70 | -45.10 | -39.90 | 0.10 |
| 12.00 | -29.40 | -47.20 | -41.80 | 0.62 |
| 13.00 | -30.90 | -46.60 | -43.90 | 0.53 |
| 14.00 | -31.50 | -44.60 | -45.90 | 0.42 |
| 15.00 | -31.20 | -44.40 | -45.50 | 0.30 |
| 16.00 | -29.90 | -44.10 | -44.00 | 0.20 |



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