

# Coaxial Voltage Controlled Oscillator

## ZOS-100+

### Dual Output 50 to 100 MHz

#### Features

- octave bandwidth
- linear tuning, 4.5 MHz/V typ.
- excellent harmonic suppression, -29 dBc typ.
- rugged shielded case
- protected by US Patent, 6,943,629

#### Applications

- auxiliary output freq. monitoring
- load insensitive source



CASE STYLE: BR386

| Connectors | Model    |
|------------|----------|
| SMA        | ZOS-100+ |

**+RoHS Compliant**

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

#### Electrical Specifications

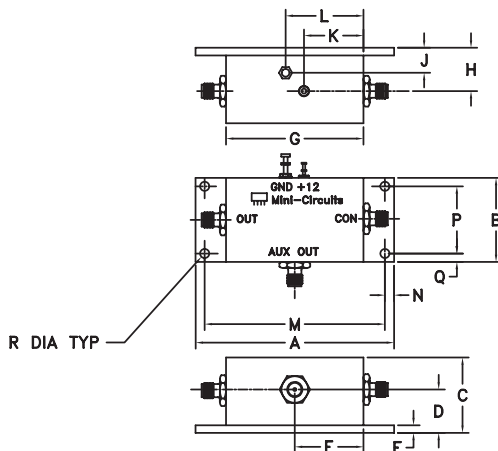
| FREQUENCY (MHz) |      | POWER OUTPUT (dBm) Typ. |      | TUNING VOLTAGE (V) |      | PHASE NOISE (dBc/Hz) SSB at offset frequencies: Typ. |         |       | PULLING (MHz) pk-pk (open/short) | PUSHING (MHz/V) Typ. | TUNING SENSITIVITY (MHz/V) Typ. | HARMONICS (dBc) Typ. Max. |      | 3 dB MODULATION BANDWIDTH (MHz) Typ. | DC OPERATING POWER      |                   |
|-----------------|------|-------------------------|------|--------------------|------|--|---------|-------|----------------------------------|----------------------|---------------------------------|---------------------------|------|--------------------------------------|-------------------------|-------------------|
| Min.            | Max. | Main                    | Aux. | Min.               | Max. | 10 kHz   | 100 kHz | 1 MHz | Typ.                             | Typ.                 | Typ.                            | Typ.                      | Max. | Typ.                                 | V <sub>cc</sub> (volts) | Current (mA) Max. |
| 50              | 100  | +9                      | -12  | 1                  | 16   | -111   | -131    | -143  | 0.026                            | 0.25                 | 4.5                             | -29                       | -20  | 0.1                                  | 12                      | 140               |

#### Maximum Ratings

|   |                |
|---|----------------|
| Operating Temperature                             | -55°C to 85°C  |
| Storage Temperature                               | -55°C to 100°C |
| Absolute Max. Supply Voltage (V <sub>cc</sub> )   | +16V           |
| Absolute Max. Tuning Voltage (V <sub>tune</sub> ) | +18V           |

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

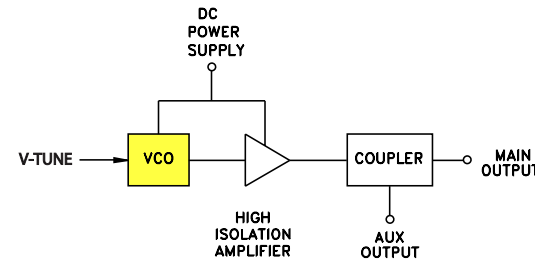
#### Outline Drawing



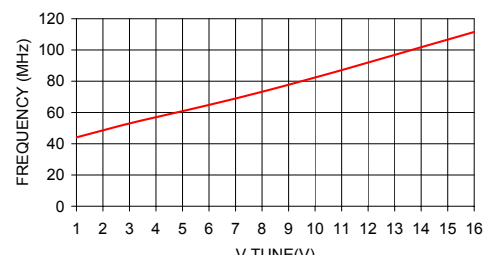
#### Outline Dimensions (inch/mm)

| A     | B     | C     | D     | E     | F    | G     | H     | J     | K     | L     | M     | N    | P     | Q    | R    | wt    |
|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|------|-------|------|------|-------|
| 3.25  | 1.38  | 1.25  | .71   | 1.13  | .125 | 2.25  | .71   | .41   | .98   | 1.28  | 2.950 | .15  | 1.100 | .14  | .150 | grams |
| 82.55 | 35.05 | 31.75 | 18.03 | 28.70 | 3.18 | 57.15 | 18.03 | 10.41 | 24.89 | 32.51 | 74.93 | 3.81 | 27.94 | 3.56 | 3.81 | 180   |

#### electrical schematic



ZOS-100+  
FREQUENCY vs. TUNING VOLTAGE



#### 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](http://www.minicircuits.com/MCLStore/terms.jsp)

