

# Coaxial Voltage Controlled Oscillator

## ZOS-50+ ZOS-50

### Dual Output 25 to 50 MHz

#### Features

- octave bandwidth
- linear tuning, 2.5 MHz/V typ.
- excellent harmonic suppression, -22 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     | Price    | Qty.  |
| SMA               | ZOS-50(+) | \$119.95 | (1-9) |

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

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

#### Electrical Specifications

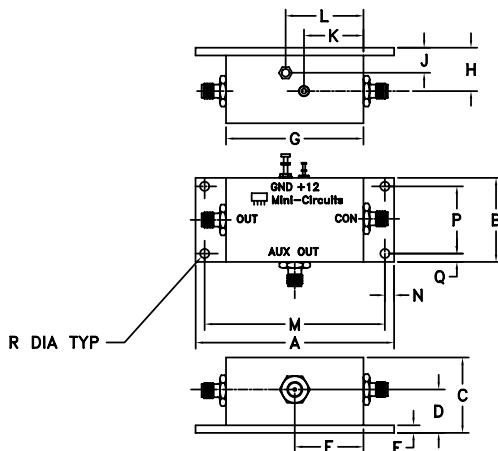
| FREQUENCY (MHz) |      | POWER OUTPUT (dBm) Typ. |      | TUNING VOLTAGE (V) |      | PHASE NOISE (dBc/Hz) SSB at offset frequencies: Typ. |         |       | PULLING (MHz) pk-pk (open/short) | PUSHING (MHz/V) | TUNING SENSITIVITY (MHz/V) | HARMONICS (dBc) |      | 3 dB MODULATION BANDWIDTH (MHz) | 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. |
| 25              | 50   | +9                      | -12  | 1                  | 16   | -107                                                 | -126    | -141  | 0.012                            | 0.08            | 2.5                        | -22             | -12  | 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> ) | +17V           |

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

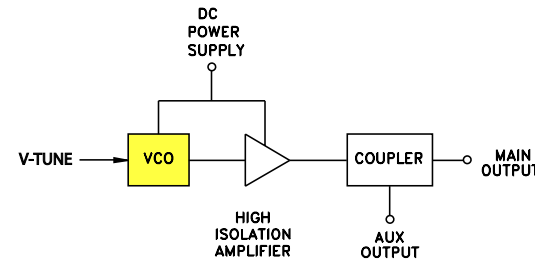
#### Outline Drawing



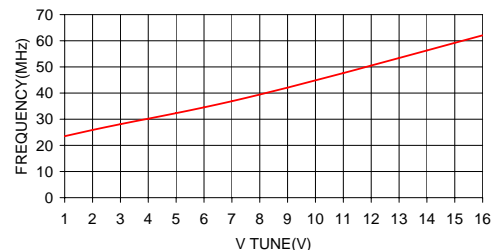
#### Outline Dimensions (inch/mm)

| A     | B     | C     | D     | E     | F    | G     | H     | J     | K     | 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-50  
FREQUENCY vs. TUNING VOLTAGE



**Mini-Circuits**  
ISO 9001 ISO 14001 AS 9100 CERTIFIED

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IF/RF MICROWAVE COMPONENTS

For detailed performance specs & shopping online see web site

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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).

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