Ceramic Low Pass Filter

50Ω

DC⁽¹⁾ to 2400 MHz

Maximum Ratings

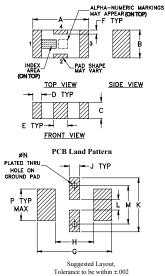
| Operating Temperature | -55°C to 100°C |
|-----------------------|-----------------|
| Storage Temperature | -55°C to 100°C |
| RF Power Input* | 9W max. at 25°C |

* Passband rating, derate linearly to 4W at 100°C ambient. Permanent damage may occur if any of these limits are exceeded.

Pin Connections

| RF IN | 1 |
|--------|-----|
| RF OUT | 3 |
| GROUND | 2,4 |

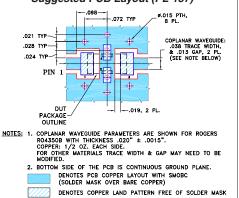
Outline Drawing



Outline Dimensions (inch)

| В | С | D | E | F | G | |
|------|---------------------------|--|---|--|---|---|
| .063 | .037 | .020 | .032 | .009 | .169 | |
| 1.60 | 0.94 | 0.51 | 0.81 | 0.23 | 4.29 | |
| | | | | | | |
| J | K | L | M | N | P | wt |
| .024 | .122 | .024 | .087 | .012 | .071 | grams |
| 0.61 | 3.10 | 0.61 | 2.21 | 0.30 | 1.80 | .020 |
| | .063 1.60 J .024 | .063 .037 1.60 0.94 J K .024 .122 | .063 .037 .020 1.60 0.94 0.51 J K L .024 .122 .024 | .063 .037 .020 .032 1.60 0.94 0.51 0.81 J K L M .024 .122 .024 .087 | .063 .037 .020 .032 .009 1.60 0.94 0.51 0.81 0.23 J K L M N .024 .122 .024 .087 .012 | .063 .037 .020 .032 .009 .169 1.60 0.94 0.51 0.81 0.23 4.29 J K L M N P .024 .122 .024 .087 .012 .071 |

Demo Board MCL P/N: TB-270 Suggested PCB Layout (PL-137)



Features

- excellent power handling, 9W
- small size
- 5 sections
- temperature stable
- LTCC construction

Applications

- harmonic rejection
 VHF/UHF transmitters/receivers
- lab use





Generic photo used for illustration purposes only CASE STYLE: FV1206

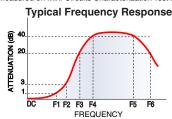
+RoHS Compliant The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications



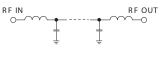
Electrical Specifications^(1,2) at 25°C

| Pa | rameter | F# | Frequency (MHz) | Min. | Тур. | Max. | Unit |
|-----------|----------------|-------|-----------------|------|------|------|------|
| | Insertion Loss | DC-F1 | DC-2400 | _ | _ | 1.5 | dB |
| Pass Band | Freq. Cut-Off | F2 | 2800 | — | 3.0 | — | dB |
| | VSWR | DC-F1 | DC-2400 | — | 1.2 | — | :1 |
| | | F3 | 3600 | 20 | — | — | dB |
| Stop Band | Rejection Loss | F4-F5 | 3700-4000 | _ | 30 | _ | dB |
| Stop Band | | F6 | 5000 | — | 20 | — | dB |
| | VSWR | F3-F6 | 3600-5000 | _ | 20 | _ | :1 |

(1) In Applications where DC isolation to ground is required, coupling capacitors are recommended to avoid DC leakage. Alternatively, if DC pass IN-OUT is required, Mini-Circuits "D" suffix version of this model will support DC IN-OUT, and provide>100 MOhm isolation to ground. (2) Measured on Mini-Circuits Characterization Test Board TB-270.



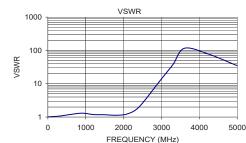




Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) | |
|--------------------|------------------------|--------------|--|
| 10.00 | 0.03 | 1.01 | |
| 308.75 | 0.10 | 1.07 | |
| 607.50 | 0.20 | 1.20 | |
| 906.25 | 0.39 | 1.31 | |
| 1205.00 | 0.41 | 1.19 | |
| 1503.75 | 0.41 | 1.17 | |
| 1802.50 | 0.46 | 1.13 | |
| 2101.25 | 0.62 | 1.25 | |
| 2400.00 | 1.34 | 1.97 | |
| 2850.00 | 6.94 | 8.51 | |
| 3000.00 | 10.53 | 14.15 | |
| 3300.00 | 19.58 | 37.77 | |
| 3600.00 | 38.18 | 115.81 | |
| 4222.22 | 23.66 | 78.97 | |
| 5000.00 | 19.90 | 34.75 | |





Notes
A. 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.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. 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 wisit Mini-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp

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