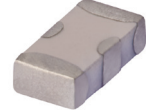


Ceramic Low Pass Filter

50Ω DC to 4400 MHz

LFCN-4400D+



Generic photo used for illustration purposes only
CASE STYLE: FV1206

Maximum Ratings

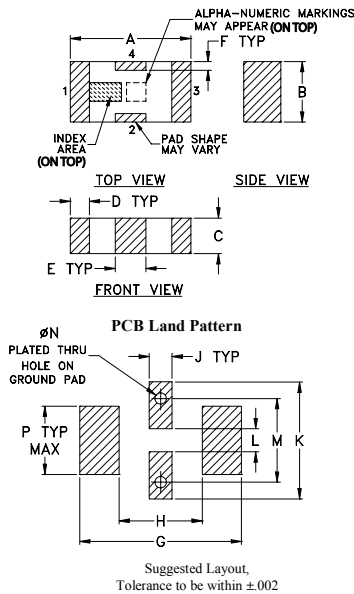
| | |
|-------------------------------|-------------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input* | 8W max. at 25°C |
| Max. DC Voltage at pins 1 & 3 | 25 VDC |
| DC Current Input to Output | 0.5A max. at 25°C |

* Passband rating, derate linearly to 3W 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 |

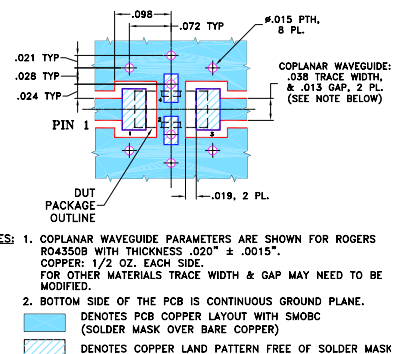
Outline Drawing



Outline Dimensions (inch)

| A | B | C | D | E | F | G | |
|------|------|------|------|------|------|------|-------|
| .126 | .063 | .037 | .020 | .032 | .009 | .169 | |
| 3.20 | 1.60 | 0.94 | 0.51 | 0.81 | 0.23 | 4.29 | |
| H | J | K | L | M | N | P | wt |
| .087 | .024 | .122 | .024 | .087 | .012 | .071 | grams |
| 2.21 | 0.61 | 3.10 | 0.61 | 2.21 | 0.30 | 1.80 | .020 |

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



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-Circuit's 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-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp

Features

- excellent power handling, 8W
- small size
- 7 sections
- temperature stable
- hermetically sealed
- LTCC construction
- protected by U.S. Patent 6,943,646

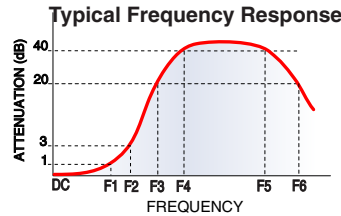
Applications

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

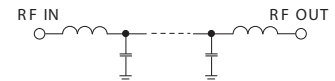
Electrical Specifications^{1,2} at 25°C

| Parameter | F# | Frequency (MHz) | Min. | Typ. | Max. | Unit | |
|-----------|----------------|-----------------|------------|------|------|------|----|
| Pass Band | Insertion Loss | DC-F1 | DC-4400 | — | — | 1 | dB |
| | Freq. Cut-Off | F2 | 5290 | — | 3.0 | — | dB |
| | VSWR | DC-F1 | DC-4400 | — | 1.2 | — | :1 |
| Stop Band | Rejection Loss | F3 | 6700 | 20 | — | — | dB |
| | | F4-F5 | 6280-9800 | — | 30 | — | dB |
| | VSWR | F5-F6 | 9800-13000 | — | 20 | — | dB |
| | | F3-F6 | 6700-13000 | — | 17 | — | :1 |

1. DC Resistance to ground is 100 Mohms min.
2. Measured on Mini-Circuits Characterization Test Board TB-270.

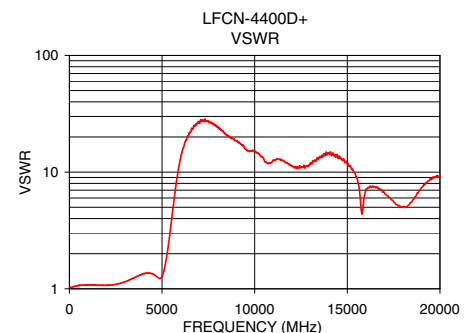
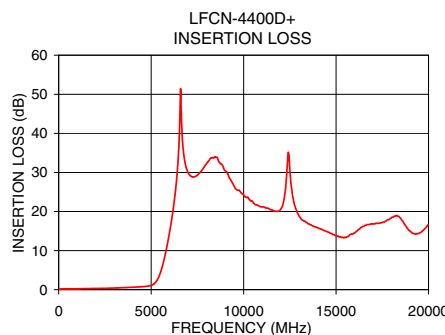


Electrical Schematic



Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|-----------------|---------------------|-----------|
| 50 | 0.04 | 1.03 |
| 320 | 0.12 | 1.06 |
| 1340 | 0.24 | 1.08 |
| 3740 | 0.57 | 1.33 |
| 4400 | 0.75 | 1.39 |
| 5170 | 1.98 | 1.88 |
| 5290 | 2.99 | 2.62 |
| 5580 | 7.66 | 6.63 |
| 5860 | 14.61 | 13.09 |
| 6280 | 31.47 | 21.20 |
| 6700 | 31.52 | 26.33 |
| 7400 | 28.90 | 26.33 |
| 9800 | 24.24 | 14.26 |
| 13000 | 19.94 | 12.80 |
| 20000 | 17.61 | 11.53 |



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