

# Ceramic Low Pass Filter

50Ω

DC to 2600 MHz

LFCN-2600D+



CASE STYLE: FV1206

PRICE: \$2.49 ea. QTY (20)

## +RoHS Compliant

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



Available Tape and Reel at no extra cost

| Reel Size | Devices/Reel                      |
|-----------|-----------------------------------|
| 7"        | 20, 50, 100, 200, 500, 1000, 3000 |

## Maximum Ratings

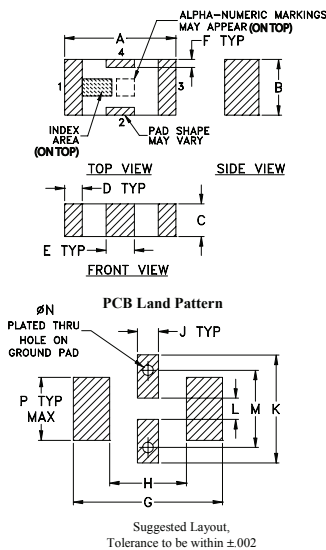
|                             |                   |
|-----------------------------|-------------------|
| Operating Temperature       | -55°C to 100°C    |
| Storage Temperature         | -55°C to 100°C    |
| RF Power Input*             | 10W max. at 25°C  |
| Max. DC Voltage at pins 1&3 | 25 VDC            |
| DC Current Input to Output  | 0.5A max. at 25°C |

\* Derate linearly to 3.5W 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



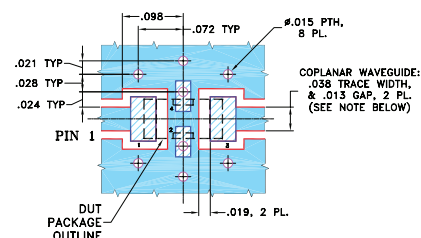
## Outline Dimensions (inch)

| 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: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH THICKNESS .020" ± .0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH & GAP MAY NEED TO BE MODIFIED.

2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

■ DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

■ DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

### 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)

## Features

- excellent power handling, 10W
- small size
- 7 sections
- temperature stable
- LTCC construction
- protected by U.S. Patent 6,943,646

## Applications

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

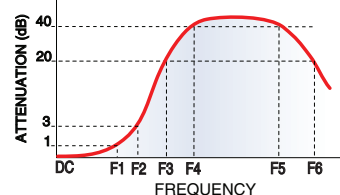
## Electrical Specifications<sup>1,2</sup> at 25°C

| Parameter | F#             | Frequency (MHz) | Min.      | Typ. | Max. | Unit |
|-----------|----------------|-----------------|-----------|------|------|------|
| Pass Band | Insertion Loss | DC-F1           | DC-2600   | —    | 1.2  | dB   |
|           | Freq. Cut-Off  | F2              | 3025      | 3.0  | —    | dB   |
|           | VSWR           | DC-F1           | DC-2600   | 1.2  | —    | :1   |
| Stop Band | Rejection Loss | F3              | 3750      | 20   | —    | dB   |
|           | F4-F5          | 3900-6600       | —         | 30   | —    | dB   |
|           | F6             | 8400            | —         | 20   | —    | dB   |
|           | VSWR           | F3-F6           | 3750-8400 | 20   | —    | :1   |

1. DC Resistance to ground is 100 Mohms min.

2. Measured on Mini-Circuits Characterization Test Board TB-270.

## Typical Frequency Response



## Electrical Schematic



## Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|-----------------|---------------------|-----------|
| 100.00          | 0.09                | 1.02      |
| 1300.00         | 0.35                | 1.14      |
| 2600.00         | 1.00                | 1.51      |
| 3025.00         | 2.75                | 2.88      |
| 3125.00         | 4.05                | 4.01      |
| 3300.00         | 8.39                | 8.78      |
| 3700.00         | 30.55               | 20.11     |
| 3750.00         | 35.82               | 19.66     |
| 3800.00         | 42.25               | 18.86     |
| 3900.00         | 38.68               | 16.67     |
| 4000.00         | 35.30               | 14.09     |
| 6600.00         | 40.27               | 23.50     |
| 7000.00         | 33.94               | 24.63     |
| 7800.00         | 26.30               | 23.53     |
| 8400.00         | 20.91               | 18.78     |

