

Ceramic Low Pass Filter

DC to 120 MHz

NEW!

LFCN-120



BLUE CELL™

CASE STYLE: FV1206

Maximum Ratings

| | |
|----------------------------|-------------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input* | 8.5W max. at 25°C |
| DC Current Input to Output | 0.5A max. at 25°C |

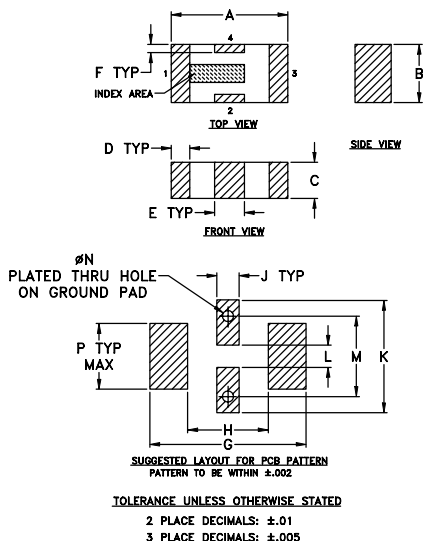
*Passband rating, derate linearly to 3.5W at 100°C ambient.

Pin Connections

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

**RF IN & RF OUT can be interchanged

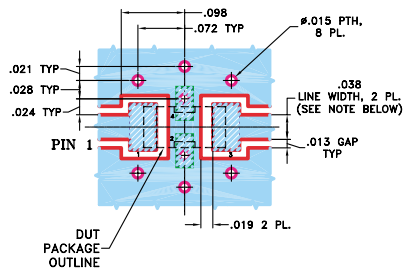
Outline Drawing



Outline Dimensions (inch/mm)

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



Features

- excellent power handling, 8.5W
- small size
- 7 sections
- temperature stable
- patent pending

Applications

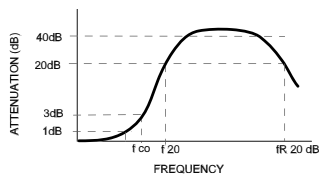
- harmonic rejection
- VHF/UHF transmitters/receivers
- RF suppression for DC lines on PCB
- anti-aliasing for A/D converter

Low Pass Filter Electrical Specifications¹ (T_{AMB}=25°C)

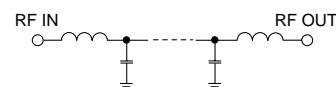
| MODEL NO. | PASSBAND (MHz) (loss < 1 dB) Max. | f _{co} , MHz Nom. (loss 3 dB) Typ. | STOP BAND (MHz) (loss, dB) | | | VSWR (:1) | | NO. OF SECTIONS |
|-----------|---|--|-------------------------------|------------|---------------|------------------|------------------|-----------------|
| | | | f 20 Min. | 40 Typ. | fr 20 Typ. | Stopband Typ. | Passband Typ. | |
| LFCN-120 | DC-120 | 195 | 270 | 285-1850 | 4750 | 20 | 1.2 | 7 |

1. For Applications requiring DC voltage to be applied to the Input or output, use LFCN-120D (DC Resistance to ground is 100 Mohms min.)

typical frequency response



schematic



Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|-----------------|---------------------|-----------|
| 1.00 | 0.13 | 1.04 |
| 51.00 | 0.38 | 1.06 |
| 100.00 | 0.66 | 1.13 |
| 120.00 | 0.81 | 1.09 |
| 150.00 | 1.13 | 1.07 |
| 200.00 | 3.28 | 2.35 |
| 250.00 | 17.85 | 9.96 |
| 270.00 | 30.80 | 13.60 |
| 285.00 | 41.37 | 15.13 |
| 500.00 | 47.59 | 25.19 |
| 1050.00 | 60.41 | 64.35 |
| 2050.00 | 37.25 | 54.29 |
| 3050.00 | 27.60 | 44.55 |
| 4050.00 | 23.48 | 31.03 |
| 4750.00 | 22.45 | 7.28 |

