

Bandpass Filter

50Ω 120 to 210 MHz

Maximum Ratings

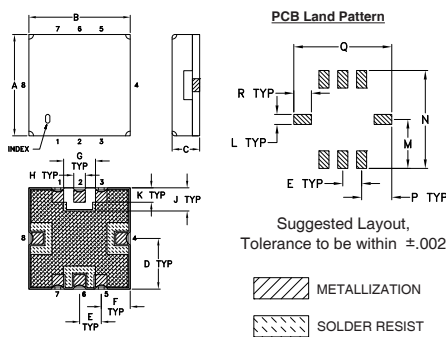
| | |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input | 0.5 W at 25°C |

Permanent damage may occur if any of these limits are exceeded.

Pin Connections

| | |
|--------|-------------|
| RF IN | 2 |
| RF OUT | 6 |
| GROUND | 1,3,4,5,7,8 |

Outline Drawing



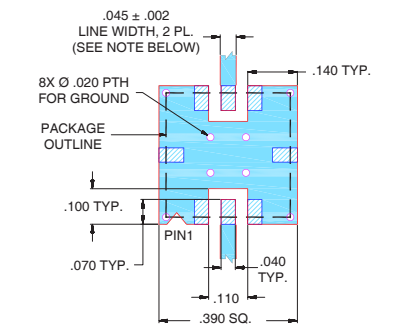
Outline Dimensions (inch/mm)

| A | B | C | D | E | F | G | H | J |
|------|------|------|------|------|------|------|------|------|
| .350 | .350 | .100 | .175 | .075 | .100 | .110 | .040 | .080 |
| 8.89 | 8.89 | 2.54 | 4.45 | 1.91 | 2.54 | 2.79 | 1.02 | 2.03 |

| K | L | M | N | P | Q | R | wt |
|------|------|------|------|------|------|------|-------|
| .050 | .040 | .195 | .390 | .120 | .390 | .070 | grams |
| 1.27 | 1.02 | 4.95 | 9.91 | 3.05 | 9.91 | 1.78 | 0.25 |

Note: Please refer to case style drawing for details

Demo Board MCL P/N: TB-332 Suggested PCB Layout (PL-176)



- NOTES:
- TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS .025" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
 - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- LEGEND:
 DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
 DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- high rejection
- good VSWR, 1.2:1 typ. @ passband
- small size 0.35" x 0.35"
- shielded case
- aqueous washable

Applications

- harmonic rejection
- transmitters / receivers
- navigation

RBP-160+



Generic photo used for illustration purposes only

CASE STYLE: GP731

+RoHS Compliant

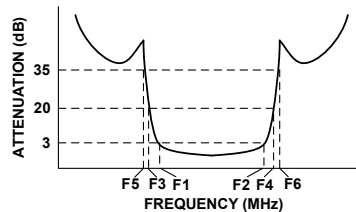
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

| Reel Size | Devices/Reel |
|-----------|----------------------|
| 7" | 10, 20, 50, 100, 200 |
| 13" | 500, 1000 |

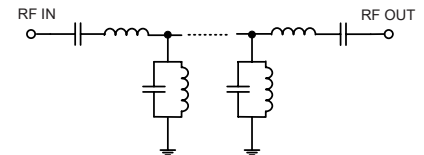
Bandpass Filter Electrical Specifications (T_{AMB} = 25°C)

| CENTER FREQ. (MHz) | PASSBAND (MHz) (Loss < 3dB) F1 - F2 | STOPBANDS (MHz) | | VSWR (:1) | |
|--------------------|---|-------------------|-------------------|---------------|---------------|
| | | Loss > 20dB F3 | Loss > 35dB F4 | Passband Max. | Stopband Typ. |
| 165 | 120 - 210 | 85 | 280 | 70 | 340 - 2000 |

Typical Frequency Response



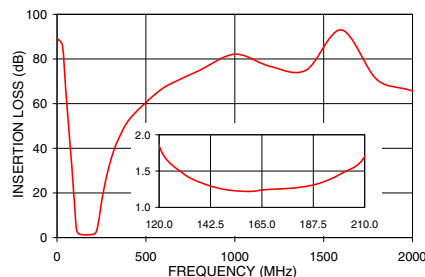
Functional Schematic



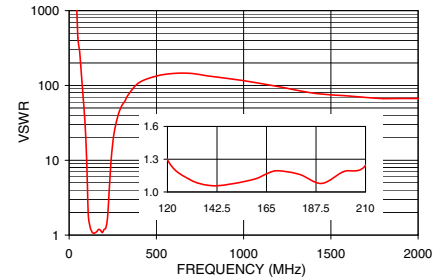
Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|-----------------|---------------------|-----------|
| 0.3 | 89.19 | 1737.18 |
| 40 | 77.22 | 1737.18 |
| 70 | 44.89 | 144.77 |
| 85 | 29.73 | 51.10 |
| 100 | 12.83 | 11.03 |
| 105 | 7.19 | 4.62 |
| 110 | 3.46 | 1.85 |
| 120 | 1.85 | 1.29 |
| 165 | 1.24 | 1.17 |
| 210 | 1.70 | 1.24 |
| 220 | 2.49 | 1.72 |
| 230 | 5.47 | 4.08 |
| 250 | 15.72 | 17.05 |
| 280 | 27.86 | 39.49 |
| 340 | 43.18 | 75.53 |
| 1000 | 82.13 | 115.81 |
| 1400 | 74.97 | 78.97 |
| 2000 | 65.68 | 66.82 |

RBP-160+
INSERTION LOSS



RBP-160+
VSWR



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.
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www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

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