

Bandpass Filter

50Ω 800 to 1000 MHz

SYBP-92+



CASE STYLE: TT1423

PRICE: \$9.95 ea. QTY (10)

Features

- High power handling, 7W
- Small size
- Temperature stable
- Excellent rejection

Applications

- Military radio
- Cellular
- GSM
- ISM

Electrical Specifications at 25°C

| Parameter | F# | Frequency (MHz) | Min. | Typ. | Max. | Unit |
|------------------|------------------|-----------------|------|------|------|------|
| Pass Band | Center Frequency | — | — | 900 | — | MHz |
| | Insertion Loss | F1-F2 | — | 1.9 | 2.8 | dB |
| | VSWR | F1-F2 | — | 1.6 | 2.1 | :1 |
| Stop Band, Lower | Insertion Loss | DC-F3 | 20 | 23 | — | dB |
| | VSWR | DC-F3 | — | 12 | — | :1 |
| Stop Band, Upper | Insertion Loss | F4-F5 | 20 | 27 | — | dB |
| | VSWR | F4-F5 | — | 10 | — | :1 |

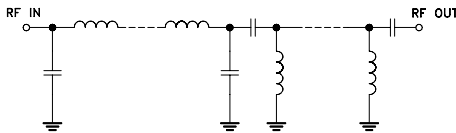
Maximum Ratings

| | |
|-----------------------|------------------|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input | 7W* max. at 25°C |

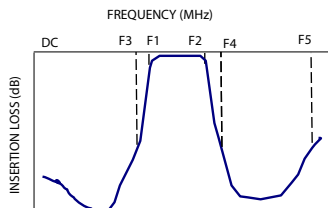
*Passband rating, derate linearly to 3W at 85°C ambient

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

Functional Schematic



Typical Frequency Response

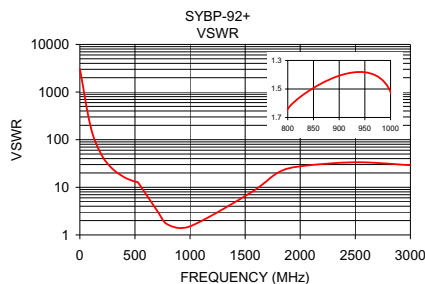
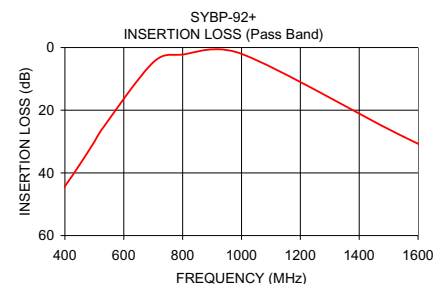
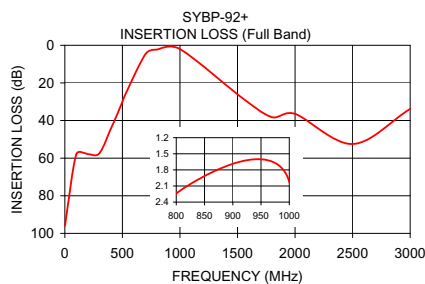


+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|-----------------|---------------------|-----------|
| 1.00 | 95.93 | 3014.56 |
| 100.00 | 57.95 | 179.36 |
| 200.00 | 57.87 | 46.52 |
| 300.00 | 57.43 | 24.06 |
| 400.00 | 44.24 | 16.44 |
| 450.00 | 37.39 | 14.52 |
| 500.00 | 30.07 | 13.16 |
| 530.00 | 25.54 | 12.43 |
| 700.00 | 4.73 | 3.24 |
| 800.00 | 2.24 | 1.64 |
| 1000.00 | 2.02 | 1.52 |
| 1550.00 | 28.43 | 7.73 |
| 1800.00 | 38.24 | 20.47 |
| 2000.00 | 36.48 | 27.60 |
| 2500.00 | 52.46 | 33.50 |
| 3000.00 | 33.80 | 29.13 |



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ISO 9001 ISO 14001 AS 9100 CERTIFIED

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at minicircuits.com

IF/RF MICROWAVE COMPONENTS

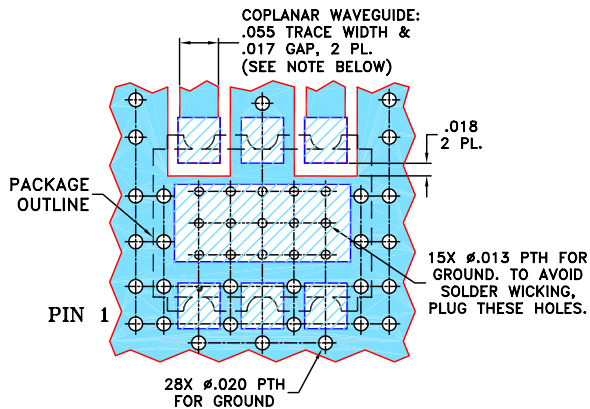
Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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.

For detailed performance specs & shopping online see web site

Pin Connections

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

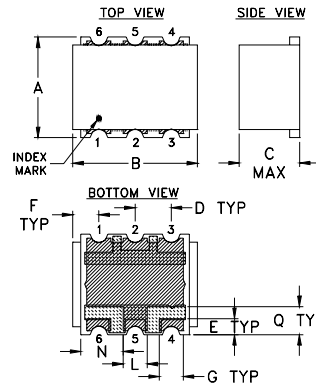
Demo Board MCL P/N: TB-517+
Suggested PCB Layout (PL-308)



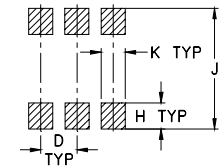
NOTES:

1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS R04350B WITH THICKNESS .030" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH AND 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

Outline Drawing



PCB Land Pattern



Suggested Layout,
 Tolerance to be within ±.002

METALLIZATION
 SOLDER RESIST

Outline Dimensions (inch)

| A | B | C | D | E | F | G | H |
|------|------|------|------|------|------|------|-------|
| .25 | .31 | .15 | .090 | .040 | .065 | .060 | .065 |
| 6.35 | 7.87 | 3.81 | 2.29 | 1.02 | 1.65 | 1.52 | 1.65 |
| J | K | L | N | Q | | | wt. |
| .300 | .060 | .060 | .105 | .070 | | | grams |
| 7.62 | 1.52 | 1.52 | 2.67 | 1.78 | | | 0.50 |